

**Personal Information** (please print)

Legal First Name	Middle Initial	Legal Last Name	Birth Date (yy/mm/dd)
Address		City/Town	Postal Code
Home or Cell Phone	Business Phone	E-mail address	Fax #

**Eligibility Requirements**

In order for Trades Qualifiers (TQ) to be approved to challenge the certification exam or for Designated Trainers (DT) to be approved to register apprentices, you must have worked both a minimum of 4.5 years within the last 10 and accumulated 8,100 hours, as well as acquired at least 70% scope of the trade. This Work Experience Form is intended for the trade of Diesel Engine Mechanic in the Rail Industry, not for Heavy Duty Equipment Technician, Agriculture Equipment Technician and/or Truck Transport.

**Check the box you are applying for**

- Trades Qualifier (Experienced tradesperson being assessed to challenge the certification exam)
- Designated Trainer (Experienced tradesperson being assessed to register apprentices)

\* We encourage all Designated Trainers interested in receiving a Certificate of Qualification (trade ticket) to apply to challenge the exam through the Trades Qualification process. The application can be found at:  
<http://www.gov.mb.ca/wdis/apprenticeship/generalinfo/forms.html>.

**Instructions**

You are about to complete the Work Experience Form (WEF) which is based on the sub-tasks outlined in the Provincial Occupational Analysis (POA). The POA provides detailed information that will assist you when completing the WEF and is your best source for identifying any training gaps. To access the POA, go to the Trade Profile page at <http://www.gov.mb.ca/wdis/apprenticeship/discover/mbtrades/index.html>. Follow the link to your trade, and click on the Provincial Occupational Analysis (POA).

Rate your experience for each sub-task based on the scale below. The number of questions in each section of the certification exam is identified next to each Block title. How you assess yourself is an important step to prepare for the certification exam.

- Circle #0 if I have no experience doing this.
- Circle #1 if I have a little experience doing this.
- Circle #2 if I have some experience doing this with help.
- Circle #3 if I have some experience doing this alone and unaided.
- Circle #4 if I have frequently done this.
- Circle #5 if I have extensive experience doing this.

Sign and date the completed Work Experience Form and return it to Apprenticeship Manitoba with either the Trades Qualification or Designated Trainer application form and related documents. Keep one copy of the Work Experience Form for your records.

**Block A Occupational Skills (18 Questions)**

Task	Sub-Tasks	Rating
1. Uses, selects and maintains tools and equipment.	1.01 Operates access equipment.	0 1 2 3 4 5
	1.02 Maintains and inspects tools.	0 1 2 3 4 5
	1.03 Calibrates tools.	0 1 2 3 4 5
	1.04 Uses hoisting, lifting and rigging equipment.	0 1 2 3 4 5
	1.05 Uses welding and cutting equipment.	0 1 2 3 4 5
	1.06 Uses computers.	0 1 2 3 4 5
	1.07 Uses personal protective equipment (PPE)	0 1 2 3 4 5

Task	Sub-Tasks	Rating
2. Organizes work.	2.01 Interprets technical documents and qualification protocols.	0 1 2 3 4 5
	2.02 Communicates with others.	0 1 2 3 4 5
	2.03 Plans daily project tasks.	0 1 2 3 4 5
	2.04 Interprets general standards and regulations.	0 1 2 3 4 5
	2.05 Complies with mining resource sector-specific standards and regulations.	0 1 2 3 4 5
	2.06 Complies with railway-sector specific standards and regulations.	0 1 2 3 4 5
	2.07 Complies with hydro-sector specific standards and regulations.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
3. Performs routine trade activities.	3.01 Uses fasteners, adhesives and other consumables.	0 1 2 3 4 5
	3.02 Cleans and prepares parts and components.	0 1 2 3 4 5
	3.03 Maintains safe work environment.	0 1 2 3 4 5
	3.04 Commissions/decommissions equipment.	0 1 2 3 4 5

**Block B Engines (16 Questions)**

Task	Sub-Tasks	Rating
4. Overhauls engine blocks.	4.01 Removes/installs engine.	0 1 2 3 4 5
	4.02 Disassembles/reassembles engine.	0 1 2 3 4 5
	4.03 Tests, repairs and requalifies mechanical engine-block components.	0 1 2 3 4 5
	4.04 Welds engine block.	0 1 2 3 4 5
	4.05 Tests water and fuel systems of block.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
5. Qualifies internal engine components.	5.01 Removes, washes and measures camshaft and crankshaft.	0 1 2 3 4 5
	5.02 Removes, washes and inspects gears.	0 1 2 3 4 5
	5.03 Removes and measures power assemblies (cylinder packs).	0 1 2 3 4 5
	5.04 Rebuilds cylinder heads.	0 1 2 3 4 5
	5.05 Rebuilds injectors/injector pumps.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
6. Aligns crankshaft.	6.01 Assesses crankshaft bore.	0 1 2 3 4 5
	6.02 Welds crankshaft bore and/or cap.	0 1 2 3 4 5
	6.03 Machines crankshaft bore and/or cap.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
7. Measures and qualifies counterbore.	7.01 Assesses counterbore.	0 1 2 3 4 5
	7.02 Welds counterbore.	0 1 2 3 4 5
	7.03 Machines counterbore.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
8. Machines intake/exhaust manifold.	8.01 Assesses intake/exhaust manifold.	0 1 2 3 4 5
	8.02 Welds intake/exhaust manifold.	0 1 2 3 4 5
	8.03 Machines intake/exhaust manifold base.	0 1 2 3 4 5
	8.04 Removes/installs intake/exhaust manifold.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
9. Measures and qualifies head-pot seat.	9.01 Assesses head-pot seat.	0 1 2 3 4 5
	9.02 Welds head-pot seat.	0 1 2 3 4 5
	9.03 Machines head-pot seat.	0 1 2 3 4 5

**Block C Engine Support Systems (11 Questions)**

Task	Sub-Tasks	Rating
10. Maintains/troubleshoots lube systems.	10.01 Diagnoses lube system.	0 1 2 3 4 5
	10.02 Services lube system.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
11. Maintains/troubleshoots cooling systems.	11.01 Diagnoses cooling systems.	0 1 2 3 4 5
	11.02 Services cooling system.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
12. Maintains/troubleshoots fuel systems.	12.01 Diagnoses fuel systems.	0 1 2 3 4 5
	12.02 Services fuel system.	0 1 2 3 4 5

	12.03 Conducts emission testing.	0 1 2 3 4 5
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Task	Sub-Tasks	Rating
13. Maintains/troubleshoots air systems.	13.01 Diagnoses air system.	0 1 2 3 4 5
	13.02 Services air system.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
14. Qualifies supercharger/turbo-charger systems.	14.01 Diagnoses supercharger/turbocharger system.	0 1 2 3 4 5
	14.02 Services supercharger/turbocharger system.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
15. Maintains/troubleshoots exhaust system components.	15.01 Diagnoses exhaust system.	0 1 2 3 4 5
	15.02 Services exhaust system.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
16. Maintains/troubleshoots engine protection devices.	16.01 Diagnoses engine protection devices.	0 1 2 3 4 5
	16.02 Services engine protection devices.	0 1 2 3 4 5

**Block D Suspension Systems, Undercarriage & Wheel Assemblies (10 Questions)**

Task	Sub-Tasks	Rating
17. Inspects and qualifies wheel assemblies (draft systems).	17.01 Performs non-destructive testing of wheel axle assembly.	0 1 2 3 4 5

	17.02 Disassembles/ reassembles traction-motor and wheel assembly.	0 1 2 3 4 5
	17.03 Diagnoses and qualifies wheel sets and traction motor.	0 1 2 3 4 5
	17.04 Services wheel sets and traction motor.	0 1 2 3 4 5
	17.05 Diagnoses and qualifies draft-gear system and components.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
18. Maintains trucks/suspension and their components.	18.01 Diagnose shocks, springs, stabilizers and trucks.	0 1 2 3 4 5
	18.02 Services shocks, spring, stabilizers and trucks.	0 1 2 3 4 5

**Block E Brake Systems (10 Questions)**

Task	Sub-Tasks	Rating
19. Troubleshoots braking systems.	19.01 Diagnoses hydraulic braking systems.	0 1 2 3 4 5
	19.02 Diagnoses mechanical braking systems.	0 1 2 3 4 5
	19.03 Diagnoses electric braking systems.	0 1 2 3 4 5
	19.04 Diagnoses pneumatic braking systems.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
20. Maintains braking systems.	20.01 Services hydraulic braking systems.	0 1 2 3 4 5
	20.02 Services mechanical braking systems.	0 1 2 3 4 5
	20.03 Services electric braking systems.	0 1 2 3 4 5
	20.04 Services pneumatic braking systems.	0 1 2 3 4 5

**Block F Driven (Auxiliary) Systems (14 Questions)**

Task	Sub-Tasks	Rating
21. Maintains/troubleshoots air compressors.	21.01 Inspects air-compressor system components.	0 1 2 3 4 5
	21.02 Performs scheduled maintenance of air compressor.	0 1 2 3 4 5
	21.03 Assembles/disassembles air compressor system components.	0 1 2 3 4 5
	21.04 Qualifies air compressor system components.	0 1 2 3 4 5
	21.05 Aligns air compressor to engine.	0 1 2 3 4 5
	21.06 Removes/installs air compressor.	0 1 2 3 4 5
	21.07 Tests air compressor operation.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
22. Maintains/troubleshoots main generator/alternator.	22.01 Inspects main generator/alternator components.	0 1 2 3 4 5
	22.02 Performs scheduled maintenance of main generator/alternator.	0 1 2 3 4 5
	22.03 Assembles/disassembles main generator/alternator components.	0 1 2 3 4 5
	22.04 Qualifies main generator/alternator components.	0 1 2 3 4 5
	22.05 Aligns main generator/alternator to engine.	0 1 2 3 4 5
	22.06 Removes/installs main generator/alternator.	0 1 2 3 4 5
	22.07 Tests main generator/alternator operation.	0 1 2 3 4 5
	22.08 Verifies voltage regulator (VR) function.	0 1 2 3 4 5
	22.09 Balances rotor.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
23. Maintains/troubleshoots electric drive motors.	23.01 Inspects electric drive motor components.	0 1 2 3 4 5

	23.02 Performs scheduled maintenance of electric drive motor.	0 1 2 3 4 5
	23.03 Assembles/disassembles electric drive motor components.	0 1 2 3 4 5
	23.04 Qualifies electric drive motor components.	0 1 2 3 4 5
	23.05 Removes/installs electric drive motor.	0 1 2 3 4 5
	23.06 Tests electric drive motor.	0 1 2 3 4 5
	23.07 Renews shaft using hydraulic press.	0 1 2 3 4 5
	23.08 Qualifies stator frame.	0 1 2 3 4 5
	23.09 Machines commutator.	0 1 2 3 4 5
	23.10 Assemble armature and frame.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
24. Maintains/ troubleshoots hydraulic motors and pumps.	24.01 Inspects hydraulic motors and pump components.	0 1 2 3 4 5
	24.02 Performs scheduled maintenance of hydraulic motors and pumps.	0 1 2 3 4 5
	24.03 Assembles/disassembles hydraulic motors/pump components.	0 1 2 3 4 5
	24.04 Qualifies hydraulic motors and pump components.	0 1 2 3 4 5
	24.05 Removes/installs hydraulic motors and pump.	0 1 2 3 4 5
	24.06 Tests hydraulic motors and pump.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
25. Maintains/troubleshoots drivetrains.	25.01 Inspects drivetrain components.	0 1 2 3 4 5
	25.02 Performs scheduled maintenance of drivetrains.	0 1 2 3 4 5
	25.03 Assembles/disassembles drivetrain components.	0 1 2 3 4 5
	25.04 Qualifies drivetrain components.	0 1 2 3 4 5
	25.05 Aligns drivetrain to engine.	0 1 2 3 4 5



	25.06 Removes/installs drivetrain.	0 1 2 3 4 5
	25.07 Tests drivetrain operation.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
26. Maintains/troubleshoots engine-mounted cooling fans.	26.01 Inspects engine-mounted cooling fan components.	0 1 2 3 4 5
	26.02 Performs scheduled maintenance of engine-mounted cooling fans.	0 1 2 3 4 5
	26.03 Assembles/disassembles engine-mounted cooling fan components.	0 1 2 3 4 5
	26.04 Qualifies engine-mounted cooling fan components.	0 1 2 3 4 5
	26.05 Aligns engine-mounted cooling fans to engine.	0 1 2 3 4 5
	26.06 Removes/installs engine-mounted cooling fans.	0 1 2 3 4 5
	26.07 Tests engine-mounted cooling fan operation.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
27. Overhaul, clean and qualify governor drive.	27.01 Inspects governor drive components.	0 1 2 3 4 5
	27.02 Performs scheduled maintenance of governor drive.	0 1 2 3 4 5
	27.03 Assembles/disassembles governor drive components.	0 1 2 3 4 5
	27.04 Qualifies governor drive components.	0 1 2 3 4 5
	27.05 Aligns governor drive to engine.	0 1 2 3 4 5
	27.06 Removes and installs governor drive.	0 1 2 3 4 5

**Block G Electrical and Control Systems (14 Questions)**

Task	Sub-Tasks	Rating
28. Troubleshoots electrical control systems.	28.01 Diagnoses electrical starting systems.	0 1 2 3 4 5

	28.02 Diagnoses electrical charging systems.	0 1 2 3 4 5
	28.03 Diagnoses electrical accessory systems.	0 1 2 3 4 5
	28.04 Diagnoses electrical power generator systems.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
29. Maintains electrical control systems.	29.01 Services electrical starting systems.	0 1 2 3 4 5
	29.02 Services electrical charging systems.	0 1 2 3 4 5
	29.03 Services electrical accessory systems.	0 1 2 3 4 5
	29.04 Services electrical power generator systems.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
30. Troubleshoots pneumatic control systems.	30.01 Diagnoses pneumatic starting systems.	0 1 2 3 4 5
	30.02 Diagnoses pneumatic accessory systems.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
31. Maintains pneumatic control systems.	31.01 Services pneumatic starting systems.	0 1 2 3 4 5
	31.02 Services pneumatic accessory systems.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
32. Troubleshoots mechanical control systems.	32.01 Diagnoses mechanical starting systems.	0 1 2 3 4 5
	32.02 Diagnoses mechanical charging systems.	0 1 2 3 4 5
	32.03 Diagnoses mechanical accessory systems.	0 1 2 3 4 5
	32.04 Diagnoses mechanical power generator systems.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
33. Maintains mechanical control systems.	33.01 Services mechanical starting systems.	0 1 2 3 4 5
	33.02 Services mechanical charging systems.	0 1 2 3 4 5
	33.03 Services mechanical accessory systems.	0 1 2 3 4 5
	33.04 Services mechanical power generator systems.	0 1 2 3 4 5

**Block H Diesel-Engine Structural and Cabin Components (7 Questions)**

Task	Sub-Tasks	Rating
34. Assesses damage and extent of repair required.	34.01 Removes components to provide access.	0 1 2 3 4 5
	34.02 Applies/installs components.	0 1 2 3 4 5
	34.03 Verifies integrity and functionality of repair.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
35. Performs steel fabrication.	35.01 Lays out workpiece on replacement material.	0 1 2 3 4 5
	35.02 Estimates and specifies required repair materials.	0 1 2 3 4 5
	35.03 Sets up required tooling and equipment.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
36. Changes out components.	36.01 Installs replacement components.	0 1 2 3 4 5
	36.02 Verifies integrity and function of replacement components.	0 1 2 3 4 5

Task	Sub-Tasks	Rating
37. Maintains cab/building accessories.	37.01 Inspects cab/building components and related equipment.	0 1 2 3 4 5

	37.02 Changes out cab/building components and related equipment.	0 1 2 3 4 5
	37.03 Fabricates floor and ceiling materials.	0 1 2 3 4 5
	37.04 Inspects/services air conditioning and heating components.	0 1 2 3 4 5

Name (please print) \_\_\_\_\_

Signature \_\_\_\_\_ Date: \_\_\_\_\_

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