

Heavy Duty Equipment Technician

Interprovincial Journeyperson Examination Information

Apprentice Requirements:	4 years and 7200 hours
Tradesperson Requirements:	6 years and 10800 hours
Practical Examination:	No

The interprovincial (IP) journeyperson examination for this trade is developed by a national committee of worker and employer representatives. The content for IP Examinations is drawn from the Red Seal Occupational Analysis (RSOS) for that trade and is based on industry's standards and expectations. You can download and print a free copy of the RSOS from the Red Seal website by visiting www.red-seal.ca.

To write the interprovincial journeyperson examination, you must either successfully complete an apprenticeship training program or meet tradesperson eligibility requirements. The pass mark is 70%.

Red Seal Examination preparation resources:

To assist in the understanding of the development of all Interprovincial Red Seal examinations, Employment and Social Development Canada (ESDC) has developed the following information.

- A short video explaining the role of an occupational standard in the development of a Red Seal examination can be accessed on the Red Seal website at the following link: <http://www.red-seal.ca/resources/wh.1t.3sn.4.1-eng.html>.
- The Getting Ready for the Examination document can be accessed through the Red Seal website at the following link: <http://www.red-seal.ca/docms/getready-eng.pdf>.
- Red Seal examination sample questions can be accessed on the Red Seal website at the following link: http://www.red-seal.ca/resources/s.1mpl.2_q.5.2st.3.4ns-eng.html.
- A trade specific skills assessment tool is available on the Red Seal website at the following link: <https://www.red-seal.ca/docms/heavy-duty-equip-tech/self-assessment.pdf>.

Use of cell phones, electronic imaging/recording or communication equipment is **not** permitted. You will be required to leave immediately if any of these items are found on your person.

Please note that examinations and study information change frequently. The most recent information is available on our website at <https://saskapprenticeship.ca>.

Heavy Duty Equipment Technician - Red Seal Examination Breakdown

An Interprovincial Red Seal examination is based on the Red Seal Occupational Standard (RSOS). The RSOS describes the skills and knowledge required to perform the duties of the trade. Each standard is divided into Major Work Activities (MWA), which are divided into Tasks, which are divided into Sub-tasks.

The Red Seal examination has a certain number of questions assigned to these sections. The number of questions are provided below. For more information, see the full Red Seal Occupational Standard for this [trade](#).

Total number of questions on the Interprovincial Red Seal examination - 135 questions*

Subject	Percent	Number of Questions
Block A: Performs Common Occupational Skills	7%	
Task A-1: Performs safety-related functions		3
Task A-2: Uses and maintains tools and equipment		4
Task A-3: Performs routine work practices		3
Task A-4: Uses communication and mentoring techniques		0
Block B: Services, Diagnoses and Repairs Engines and Supporting Systems	15%	
Task B-5: Services, diagnoses and repairs base engines		3
Task B-6: Services, diagnoses and repairs lubrication systems		2
Task B-7: Services, diagnoses and repairs intake systems		2
Task B-8: Services, diagnoses and repairs exhaust systems		2
Task B-9: Services, diagnoses and repairs engine management systems		3
Task B-10: Services, diagnoses and repairs fuel delivery systems		3
Task B-11: Services, diagnoses and repairs emission control systems		3
Task B-12: Services, diagnoses and repairs cooling systems		2
Block C: Services, Diagnoses and Repairs Steering, Suspension, Brake and Undercarriage Systems, and Wheel Assemblies	12%	
Task C-13: Services, diagnoses and repairs steering systems		4

Task C-14: Services, diagnoses and repairs suspension systems		3
Task C-15: Services, diagnoses and repairs brake systems		4
Task C-16: Services, diagnoses and repairs undercarriage systems		3
Task C-17: Services, diagnoses and repairs wheel assemblies		2
Block D: Services, Diagnoses and Repairs Electrical and Electronic Systems	19%	
Task D-18: Services, diagnoses and repairs charging systems		5
Task D-19: Services, diagnoses and repairs starting systems		4
Task D-20: Services, diagnoses and repairs battery systems		4
Task D-21: Services, diagnoses and repairs electrical components		6
Task D-22: Services, diagnoses and repairs equipment management systems and electronic components		6
Block E: Services, Diagnoses and Repairs Drivetrain Systems	12%	
Task E-23: Services, diagnoses and repairs clutches		1
Task E-24: Services, diagnoses and repairs torque converters, fluid couplers and hydraulic retarders		2
Task E-25: Services, diagnoses and repairs manual transmissions and transfer cases		2
Task E-26: Services, diagnoses and repairs automatic and powershift transmissions		4
Task E-27: Services, diagnoses and repairs driveline systems		2
Task E-28: Services, diagnoses and repairs drive axles and differentials		3
Task E-29: Services, diagnoses and repairs final drive systems		3
Block F: Services, Diagnoses and Repairs Environmental Control Systems	7%	
Task F-30: Services, diagnoses and repairs heating systems		3
Task F-31: Services, diagnoses and repairs ventilation and filtration systems		2
Task F-32: Services, diagnoses and repairs air conditioning systems		3
Task F-33: Services, diagnoses and repairs suppression systems		1
Block G: Services, Diagnoses and Repairs Hydraulic, Hydrostatic and Pneumatic Systems	18%	
Task G-34: Services, diagnoses and repairs hydraulic systems		11

Task G-35: Services, diagnoses and repairs hydrostatic systems		9
Task G-36: Services, diagnoses and repairs pneumatic systems		5
Block H: Services, diagnoses and repairs structural components, operator stations, attachments and accessories	7%	
Task H-37: Services, diagnoses and repairs structural components		3
Task H-38: Services, diagnoses and repairs operator station components		3
Task H-39: Services, diagnoses and repairs attachments and accessories		3
Block I: Services, diagnoses and repairs hybrid and all-electric equipment	3%	
Task I-40: Services, diagnoses and repairs hybrid equipment		2
Task I-40: Services, diagnoses and repairs all-electric equipment		2
Total	100%	135

**The number of questions on an interprovincial examination, assigned to assess each task from the RSOS, as derived from the collective input from workers within the trade across Canada.*

Suggested trade resources when preparing for the examination.

To assist you, a list of reference textbooks is provided below. Note that ISBN numbers are subject to change. Please consult with your supplier to access their most current version of the text you are acquiring. It is not necessary to use these specific textbooks; you may find others which will be equally beneficial. You are encouraged to seek additional reference materials in all test areas.

- Alternative Fuels Version 24.0 A190403C by NAIT/SAIT SKU 20073695
- Automotive Technology A Systems Approach by Restoule ISBN 9780176796174
- Canada's Ozone Layer Protection Awareness by Environment Canada SKU 20274702
- Diesel Fuel & Storage Tanks (Machine & Bulk Storage) VER 24.0 NAIT/SAIT SKU 20021115
- Fundamentals of Medium/Heavy Duty Commercial by Duffy ISBN 9781284041163
- Fundamentals of Medium/Heavy Duty Commercial Vehicle Systems by Duffy ISBN 9781284041163

- Fundamentals of Medium/Heavy Duty Diesel Engines by Wright ISBN 9781284067057
- Fundamentals of Mobile Heavy Equipment by Duffy ISBN 9781284112917
- Gasoline Fuel System Fundamentals VER 24.0 A190403B by NAIT/SAIT SKU 20073671
- Ignition System Fundamentals A190403A VER 24.0 by NAIT/SAIT SKU 20073657 ISBN 9781133716259
- Modern Diesel Technology Heating Ventilation Air Conditioning by Dixon
- Rigging Handbook by Klinke ISBN 9781888724189
- Simulator Activities Workbook Revision 8.2 CR008102TA Fluid Power Training Institute SKU 20302306

Individual Learning Modules (ILMs) for the Heavy Duty Equipment Technician trade may be ordered through the Saskatchewan Polytechnic Bookstore Call Centre: 1-866-569-8398 or through <https://ilm.nait.ca/home> under Heavy Equipment.

Modules for the Heavy Duty Equipment Technician trade developed by the Industry Training Authority of British Columbia (*New name: SkilledTradesBC*) are also available at: https://www.crownpub.bc.ca/Product/Listing/13502_BC-Trades?WT.ac=hpsl_BCtrades under Heavy Duty Mechanic.

Those studying for their Interprovincial examination may wish to refer to other Level booklists for additional study materials.

*Unless otherwise noted, books listed here are available through the Saskatchewan Polytechnic Bookstore Call Centre: 1-866-569-8398.

NOTE: Textbooks **are not** usually available from libraries. When textbooks are being purchased, candidates should allow several weeks for delivery and several weeks for studying.

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This information is subject to change without notice.