

Heavy Equipment Technician, Apprenticeship

Heavy duty equipment technicians repair, troubleshoot and maintain mobile heavy duty equipment used in construction, transportation, forestry, manufacturing, farming, mining and similar activities. Equipment includes graders, loaders, shovels, tractors, trucks, forklifts and wheeled and tracked vehicles of all types. Heavy duty equipment technicians perform some or all of the following duties:

Check bulldozers, cranes, graders and other heavy construction, agricultural, logging and mining equipment for proper performance. Diagnose faults or malfunctions using computerized and other testing equipment. Adjust equipment and repair or replace defective parts, components or systems using hand and power tools. Test repaired equipment for proper performance and ensure that work meets manufacturer specifications. Clean, lubricate and perform other routine maintenance work on equipment.

Transport trailer Mechanics are employed in transportation company fleet repair shops, trailer dealerships, general mechanical repair shops, manufacturers' repair shops and specialized repair shops.

Heavy Equipment Technicians are employed by specialized repair shops and organizations that own or lease the heavy equipment used in the construction, mining, forestry, material handling, landscaping, land clearing, agriculture, and transportation industries.

Truck and transport mechanics (on road) are employed in small repair shops, large fleet maintenance companies, transportation companies and construction companies.

Heavy duty equipment mechanics (off road) are employed in specialized repair shops, large fleet maintenance companies, transportation companies and construction companies.

The **Alberta Apprenticeship and Industry Training** website <http://tradesecrets.alberta.ca/> provides information on the process in becoming an apprentice, entrance requirements, training facilities and course dates provided in Alberta institutes.

With your Heavy Equipment Technician Apprenticeship training you could be a:

Construction Equipment Mechanic	Diesel Mechanic	Agriculture Equipment Mechanic	Heavy Mobile Logging Equipment Mechanic
Heavy Mobile Mining Equipment Mechanic	Locomotive Mechanic	Transport Truck Mechanic	Tractor Mechanic
College Instructor #4131	Wholesale Representative #6411	Career & Technologies Studies Teacher #4141	

This career/job listing is only a sample of the possible career options; these are certainly not the only career/job options accessible with this degree/diploma. Some of the careers listed require further education.

For career information, enter the four digit number listed below in the Alberta Learning Information Services Website (www.alis.alberta.ca) or the National Occupational Classification Website (<http://www5.hrsdc.gc.ca/NOC/>).

RDC Career Services can help you explore your interests, identify your goals, discuss your career options and job search strategies and discover how to make the most of your education. Email or give us a call to connect with a career counsellor.

RDC Department Information: Heavy Equipment Technician Apprenticeship rdc.ab.ca/programs/trades

Major skills obtained from Heavy Equipment Technician Apprenticeship:

- **Reading:** Read and interpret service manuals, technical publications, work orders, procedures and safety manuals. Read a variety of paper-based and electronic repairs guides to troubleshoot, service and maintain heavy equipment
- **Document Use:** View meters and digital diagnostics to locate data regarding energy readings, speeds, pressures, settings and error codes. Apply safety documents (WHMIS, MSDS, ISO icons, work orders, service manuals, schematics and parts manuals to projects.
- **Numeracy:** Take a variety of measurements using tools, apply spec comparisons, calculate labour time and cost. Calculate consumption rates, ratios regarding coolant, provide estimates and analyze data.
- **Oral Communication:** Communicate with suppliers, customers, supervisors and fellow employees regarding work orders. Explain complex systems or repair processes. Clearly provide explanations via telephone to clarify equipment and machinery breakdowns or diagnostics.
- **Thinking Skills:** Ability to think critically to judge the condition of parts and repair complex machinery. Prioritization of tasks to maintain most cost and time effective measures. Consult with others regarding parts replacement decisions and complete cost analysis. Decide where to locate information and take most effective course of actions.
- **Working with Others:** Heavy duty equipment mechanics often work independently from work orders. They can work in partners or as team members in service centres. They utilize their colleagues and service managers when problem solving and diagnosing plans of action.
- **Digital Technology:** Use of diagnostic equipment to determine operational data such as horsepower, torque, pressure readings and air to fuel ratios. Computer use for service information, schematics, company based software applications, email, Internet searches.
- **Continuous Learning:** There is constant change in this industry. Reading service manuals and familiarizing self with systems before attempting to diagnose problems is a mainstay. Reading of bulletins regarding new products and recently identified equipment malfunctions as well as journals to keep up to date on developments in industry is encouraged.

Professional Associations and Sites of Interest:

Alberta Apprenticeship and Industry training- tradesecrets.alberta.ca

Alberta Construction Industry "Trade Up!" www.tradeupalberta.com

Alberta Roadbuilders and Heavy Construction Association <http://arhca.ab.ca/>

AMEC Environment and Infrastructure <http://www.amec.com/>

Ellis Chart <http://www.ellischart.ca/h.4m.2@-eng.jsp>

Information Adapted From:

www.alis.alberta.ca/edinfo and www.tradesecrets.alberta.ca