

Heavy Equipment Technician – Subsidiary 4

APS Benchmark Listings

Sub.No.	Bench- mark No.	Department	Working Title Job Title	Know-How				Creativity/ Problem Solving		Responsibility		Total Points
				Prof./ Cont.	Comp. Div.	H.R. Skills	Points	%	Points	Profile	Points	
Heavy Equipment Technician 2 (Point Range 269 - 313)												
004	046HD32	Forestry and Parks	Mechanical Supervisor	D+	I	2	175	29	50	R1	57	282
Heavy Equipment Technician 1 (Point Range 192 - 227)												
004	044HD57	Agriculture and Irrigation	Heavy Equipment Technician	D	I	1	132	25	33	R1	38	203

Last Review / Update: May 2024

Subsidiary 4

Benchmark Evaluation – 046HD32

Identification Section

Working Title:	Mechanical Supervisor
Department:	Forestry and Parks
Division, Branch/Unit:	Forest Protection Division, Wildfire Services Branch, Provincial Warehouse, Mechanical Section
Reports To:	Provincial Warehouse Manager
Levels to D.M.:	4
Job Description:	046HD32
Minimum Recruitment Standard:	See Minimum Recruitment Standards for Heavy Equipment Technician
Job Code:	046HD - Heavy Equipment Technician 2

Comments on Role

Position oversees a provincial shop that maintains, and repairs fire suppression, highway, automotive, heavy duty and off-road equipment utilized throughout the province. It assigns work and allocates tradesmen time. This is inclusive of assisting tradesmen in repair procedures and techniques when problems are encountered.

Evaluation

Knowledge	Creativity / Problem Solving	Responsibility	Total Job Points
D+ 2 175	29% 50	R1 57	282

Comments on Evaluation

- **Knowledge:**

Professional/Content Knowledge:

Position requires journey level trade certification in a related trade and considerable repair experience. It also requires a thorough knowledge of small engine, automotive and heavy-duty equipment repair. In addition, it also needs to have knowledge of OH&S acts and regulations and equipment inspection requirements. This combination of content knowledge results in the D+ rating.

Complexity and Diversity:

Position must have the ability to oversee and coordinate a large shop operation.

Human Relations Skill:

Position has influence through its supervisory responsibilities, including the allocation of staff time to best utilize available workforce.

▪ Creativity/Problem Solving:

Position is highly operational and is also responsible for administrative tasks in overseeing a large shop operation. Tasks are diverse and latitude is permitted in deciding the course of action to take in differing situations.

▪ Responsibility:

Position primarily is focused on providing repair shop services for clients.

Last Reviewed: March 11, 2016

Subsidiary 4 Benchmark

Job Description – 046HD32

Purpose

(Brief summary of the job, covering the main responsibilities, the framework within which the job has to operate and the main contribution to the organization.)

The Mechanical Supervisor oversees a provincial shop that maintains, and repairs fire suppression, highway, automotive, heavy duty and off-road equipment utilized throughout the province. Position assigns work and allocates tradespeople time to best utilize available workforce. Responsibilities include assisting tradespeople in repair procedures and techniques when problems are encountered.

Responsibilities and Activities

(The purpose of the job can be broken down in different responsibilities and end results. Each end result shows what the job is accountable for, within what framework and what the added value is. Normally a job has 4-8 core end results. For each end result, approximately 3 major activities should be described.)

Oversees Shop Operations:

- Responsible for completing work.
- Track equipment.
- Allocate tradesmen time to best utilize workforce throughout the year and in emergencies.
- Requisition and order all repair parts and supplies for shop operations.
- Maintain a parts inventory.
- Research alternate parts sources and suppliers to minimize costs while maintaining certification standards.
- Co-ordinate work through other trades and private sector shops such as machining, fabrication and welding.
- Maintains Commercial Vehicle Inspection Certificate.

Supervisory responsibilities:

- Provide overall guidance and direction to several trades and support positions.
- Assist tradespeople in repair procedures and techniques when problems are encountered.
- Involved in the staff recruitment process.
- Formally appraise performance.
- Ensure all tradespeople are exercising safe procedures and that trade practices and regulations are followed.

Contact for mechanical problems from other shops and personnel:

- Discuss problems and make decisions on repair procedures.
- Provide overall guidance.
- Attend department and inter-provincial meetings and be involved in researching patterns and trends in equipment failures.

Scope

(List specific information that illustrates what internal or external areas the job impacts, and the diversity, complexity, and creativity of the job.)

Position is responsible for a provincial repair shop that maintains fire suppression, trailers, generators, automotive, heavy duty and off-road equipment for the department. This position independently makes decisions on day-to-day shop operations including work orders, work prioritization and deployment of resources.

Knowledge, Skills, and Abilities

(Provide a list of the most important knowledge factors, skills and abilities including knowledge about practical procedures, specialized techniques, etc.; analytical and conceptual skills and abilities; and skills needed for direct interaction with others not only diplomas and degrees. Specific training if it is an occupational certification/registration required for the job.)

Knowledge, Skills and Qualifications:

- Position requires a thorough knowledge of small engine, automotive and heavy-duty equipment repair including vehicle, heavy duty and fire suppression equipment.
- Position requires the ability to oversee and co-ordinate a large shop operation.
- Also requires knowledge of OH&S acts and regulations and equipment inspection requirements.
- Requires journey level trade certification in a related trade and considerable repair experience, and some supervisory experience.

Contacts

(The main contacts of this position and the purpose of those contacts.)

Communications are primarily for the purpose of guiding and directing staff. However, position also has external communications for the purpose of assisting other shops in resolving repair problems and to determine trends in equipment failures and solutions.

Supervision Exercised

Position has full supervisory responsibility for four Small Engine/Automotive Mechanics, one Heavy Duty Mechanic and one Maintenance Service Worker.

Last Review / Update: March 11, 2016

Subsidiary 4

Benchmark Evaluation – 044HD57

Identification Section

Working Title:	Heavy Equipment Technician
Department:	Agriculture and Irrigation
Division, Branch/Unit:	Primary Agriculture, NRMB/FWS
Reports To:	Supervisor, Water Pumping Program
Levels to D.M.:	6
Job Description:	044HD57
Minimum Recruitment Standard:	See Minimum Recruitment Standards for Heavy Equipment Technician
Job Code:	044HD - Heavy Equipment Technician 1

Comments on Role

The Heavy Equipment Technician for the Water Pumping Program provides preventive maintenance, diagnostics and repairs to a variety of equipment including heavy duty trucks, light trucks, tractors, water pumps, pipes and trailers. The position tests, adjusts, builds, and repairs components and systems including engines, steering and braking systems, running gears, vehicle suspensions, wheel alignments, electrical and air-conditioning systems.

Evaluation

Knowledge	Creativity / Problem Solving	Responsibility	Total Job Points
D 1 132	25% 33	R1 38	203

Comments on Evaluation

- **Knowledge:**

- **Professional/Content Knowledge:**

- Position is rated D as it is a full working level tradesperson requiring a journeyman heavy equipment trade certification, related diagnostic, repair and maintenance experience in a variety of vehicles and equipment including heavy duty trucks, a Class 3 Driver's License and a Commercial Vehicle Inspection certificate.

- **Complexity and Diversity:**

- The position plans, coordinates and schedules maintenance, repairs of a diverse array of vehicles and equipment and certifies vehicles meet inspection requirements for operation on highways.

Human Relations Skill:

Communication is for the purpose of receiving and exchanging technical information to perform diagnostic, repair and maintenance encompassed within the rating of "1".

▪ Creativity/Problem Solving:

Reporting to the Supervisor, Water Pumping Program, the position works within an established framework governing the scope of work of the trade, manufacturer specifications and requirements of the vehicle inspection program. The position independently performs assigned duties including diagnostics, testing, adjusting, building and repairing components and systems for a variety of heavy-duty vehicles and equipment. The application of judgement is required to determine the appropriate solution within established standards and procedures to situations encountered in the performance of assigned responsibilities. Although the position is the "go-to" for its trade, there is assistance from the supervisor for operational guidance, costing approvals and advice, and priority setting, hence supporting the rating of 25%.

▪ Responsibility:

Service delivery role providing heavy equipment repair and maintenance of a variety of equipment in support of the water pumping program.

Last Reviewed: June 2023

Subsidiary 4 Benchmark

Job Description – 044HD57

Purpose

(Brief summary of the job, covering the main responsibilities, the framework within which the job has to operate and the main contribution to the organization.)

The Heavy Equipment Technician for the Water Pumping Program provides preventive maintenance, diagnostics and repairs to a variety of equipment including heavy duty trucks, light trucks, tractors, water pumps, pipes and trailers. The position tests, adjusts, builds and repairs components and systems including engines, steering and braking systems, running gears, vehicle suspensions, wheel alignments, electrical and air-conditioning systems. The position requires training in the repair and maintenance and proper use of equipment and is able to work independently.

Responsibilities and Activities

(The purpose of the job can be broken down in different responsibilities and end results. Each end result shows what the job is accountable for, within what framework and what the added value is. Normally a job has 4-8 core end results. For each end result, approximately 3 major activities should be described.)

Repair, service and maintain vehicles and equipment:

- Test, maintain and overhaul gas, propane and diesel engines and generators to factory specifications.
- Repair and service AC and DC electric motors, welders, lathes, major and minor appliances, and electrical shop equipment.
- Repair power plant trailers and pumps.
- Perform field inspections of various equipment and diagnose and repair.
- Provide advice concerning corrective operating measures.
- Perform preventive maintenance and repairs to heavy-duty equipment and conduct CVI inspections.

Perform shop work:

- Design and construct mechanical apparatus that cannot be purchased.
- Operate shop machinery including a lathe, metal shear, valve grinders and welder.

Perform administrative functions:

- Submit part lists required for maintenance of an adequate supply of preventative maintenance and overhaul parts for trailers, pumps and other equipment.
- Report on the service requirements and operating specifications of new equipment, including data entry into GoA maintenance systems.
- Compile operating rules and procedures for each type of pump and trailer.
- Instruct field and headquarter staff on the correct operation and service of pumps, trailers and other equipment.
- Assist with client rental calls, information requests, and data entry and tracking for the Water Pumping Program.

Performs equipment operator functions during peak times or on an as needed basis to support the water pumping program:

- Operates trucks, loaders, and booms.
- Assist in the movement, delivery and set-up of equipment for use by producers on their sites.

Building and yard maintenance.

- Assist in yard clean-up, maintenance and general upkeep.

Scope

(List specific information that illustrates what internal or external areas the job impacts, and the diversity, complexity, and creativity of the job.)

- Agricultural producers in Alberta have access to Water Pumping Program equipment and related information.
- Vehicles and other pumping related equipment are safe to use and meet provincial standards, supporting efficient and effective delivery of the Water Pumping Program.

Typical problems solved:

Problems related to equipment maintenance, inspection, and repairs as listed above.

Types of guidance available for problem solving:

Work is typically performed independently according to trade practices and manufacturer's specifications; however, the Supervisor of the Program is available for guidance, approval of repair costs and technical advice. Discussion and generation of ideas or innovative solutions with Program staff in the maintenance shop.

Knowledge, Skills, and Abilities

(Provide a list of the most important knowledge factors, skills and abilities including knowledge about practical procedures, specialized techniques, etc.; analytical and conceptual skills and abilities; and skills needed for direct interaction with others not only diplomas and degrees. Specific training if it is an occupational certification/registration required for the job.)

Qualifications:

- Must have a journey level trades certification as a Heavy Equipment Technician and a Commercial Vehicle Inspection certificate.
- Must have Class 3 Driver's license with Air Brakes (Q-endorsement).

Knowledge:

- Requires thorough knowledge of vehicle and engine diagnostics, maintenance and repair gained through journey level certification as heavy-duty mechanic and considerable diversified experience. Position also requires innovation to address challenges unique to equipment used in this program.
- Requires knowledge of MSDS and WHIMIS and basic computer literacy.

Skills and abilities:

Must be able to operate a variety of manual, electronic, and pneumatic tools and equipment required to diagnose and repair mechanical problems.

Contacts

(The main contacts of this position and the purpose of those contacts.)

Contacts are typically with the Water Pumping Program Supervisor and other staff to gain sufficient information to diagnose problems and implement and prioritize maintenance, inspections and repairs. Communication is typically for the purpose of exchanging information in regard to diagnosing a problem with a vehicle or to explain a particular repair. Position occasionally provides guidance and direction to other trades positions. Agricultural producers in Alberta are provided Water Pumping Equipment, instruction and relevant information.

Supervision Exercised

No Supervision.