



2012 15th ANNUAL SKILLS MANITOBA COMPETITION CONTEST SCOPE

CONTEST NAME: Heavy Equipment Service

CONTEST NO: 94

CATEGORY: Post-Secondary

CONTEST LOCATION: Heavy Equipment Training Center Building Z

CONTEST START TIME AND DURATION:
6 hours, immediately after the opening ceremonies

PURPOSE OF CHALLENGE:

To give students and apprentices the opportunity to apply their knowledge and abilities in the trade of Heavy Equipment repair. To build confidence and elevate self-esteem in contestants and to provide a non-threatening and friendly atmosphere where they can compete in a fair and equitable competition.

SKILLS AND KNOWLEDGE TO BE TESTED:

1. Hydraulics

Diagnose various hydraulic system faults
Safely identify Hydraulic pressures and flows

2. Theory

Examination questions regarding all aspects of the repair and diagnosis of heavy duty equipment.

3. Measuring

Perform precision measuring on various components
Selection of the proper measuring devices

4. Electrical Diagnostics

Perform electrical tests on heavy duty equipment using various pieces of electrical test equipment. Perform electrical fault analysis through the use of diagnostic equipment

5. Machine Shop (Layout and Benchwork)

Perform a layout on a selected piece of metal. Drilling, tapping and bolt extraction.
Selection of proper drill bits and taps.

6. Perform Engine Adjustments

Perform adjustments on engine top end components
Adjust engine, fuel timing, and injectors
Engine brake adjustments

7. Drive Train Repair and Analysis.

Perform adjustments and or Analyze Drive components.
Make adjustments if necessary to Clutches, Rear axles, or Transmissions related to Heavy Equipment.

POINT BREAKDOWN / 1000 TOTAL:

Each practical station shall have equal value and total 90% of the competition total
A written exam shall be worth 10% of the competition total

Contestants will be judged on the following:

Follows correct procedures
Achieves target results
Time
Compliance with safety regulations
Vehicle and equipment care
Uses industry accepted practices
Shows a positive attitude toward other contestants and judges

NATIONAL COMPETITION ELIGIBILITY:

- A mark of **70% or higher** must be scored by the gold medalist in order to attend the National Skills Competition

EQUIPMENT, TOOLS, MATERIALS TO BE PROVIDED BY COMMITTEE:

All tools and equipment will be provided by the committee

EQUIPMENT, TOOLS, MATERIALS TO BE SUPPLIED BY COMPETITOR:

WORKSITE SAFETY RULES / REQUIREMENTS:

- Proper eye protection and clothing must be worn at all times during the competition.
- CSA approved footwear
- Safety glasses/Goggles
- Coveralls/Shopcoats

TECHNICAL COMMITTEE MEMBERS CONTACT INFORMATION

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