

NOC 7312 – Heavy-Duty Equipment Mechanics

Description of occupation

Heavy-duty equipment mechanics repair, troubleshoot, adjust, overhaul and maintain mobile heavy-duty equipment used in construction, transportation, forestry, mining, oil and gas, material handling, landscaping, land clearing, farming and similar activities. They are employed by companies which own and operate heavy equipment, and by heavy equipment dealers, rental and service establishments, and railway transport companies and urban transit systems (Statistics Canada, 2016).

Illustrative example(s):

- Agriculture equipment technician
- Construction equipment mechanic
- Diesel mechanic – heavy equipment
- Farm equipment mechanic
- Heavy equipment mechanic
- Heavy mobile mining equipment
- Heavy-duty equipment mechanic apprentice
- Heavy-duty equipment technicians
- Locomotive mechanic
- Tractor mechanic

Heavy-duty equipment mechanics perform some or all of the following duties:

- Check bulldozers, cranes, graders and other heavy construction, agricultural, logging and mining equipment for proper performance and inspect equipment to detect faults and malfunctions
- Diagnose faults or malfunctions using computerized and other testing equipment to determine extent of repair required
- Adjust equipment and repair or replace defective parts, components or systems, using hand and power tools
- Test repaired equipment for proper performance and to ensure that work meets manufacturers' specifications
- Clean, lubricate and perform other routine maintenance work on equipment
- Service attachments and working tools such as harvesting and tillage equipment, blades, ploughs, winches and side booms
- May perform repair work on heavy trucks
- May attach components and adjust new farm equipment.

Heavy-duty mechanics may specialize in specific types of machinery such as combines or tracked vehicles, or in engine overhaul, power shift transmissions, fuel injection, hydraulics or electronics (Statistics Canada, 2016).

What is a NOC code?

The NOC system is based on categorizing occupations by their evaluated skill level and skill type. Each NOC code consists of four digits. The first digit denotes the occupation's skill type; the second denotes

the occupation's skill level. Combined, these two digits define the NOC "Major Group" for all occupations with the same skill level and skill type. The final two digits are employed to narrow, or "drill down", to a specific occupational group. The third digit, combined with the "Major Group", defines the "Minor Group". The fourth digit identifies even further the specific occupation within the "Minor Group", referred to as the NOC "Unit Group". The NOC is a standard that classifies and describes occupations in the Canadian economy. It is the foundation for occupational statistics and labour market information (Ministry of Advanced Education and Skills Development, 2016).

Training and/or education required

Ontario college heavy-duty equipment programs typically require an Ontario Secondary School Diploma. Additional credits will vary by program, but may include a grade 12 English and/or senior math credit (Ontario Colleges, 2016).

An apprenticeship training program consists of on-the-job and in-school training. Generally, the time-frame to become competent in the trade of Heavy Duty Equipment Technician is 7000 hours (approximately three and a half years) consisting of 6280 hours of on-the-job work experience and 720 hours of in-school training (Ontario College of Trades, 2015).

One-year heavy equipment techniques programs focus on the foundations of servicing heavy equipment systems, from brake and drive train to electrical and fuel systems. Techniques such as welding, precision measuring and more are practiced in on-site facilities and through work placements. Two-year technician programs build on these foundations with further equipment and system training and theory, such as advanced control system diagnosis, logistics and more (Ontario College of Trades, 2015).

The training received in many heavy equipment programs counts as credit toward apprenticeships in the industry.

Heavy-duty equipment mechanics programs are available at the following colleges in Ontario, as of September 2016:

- Fleming College
- Sault College
- Collège Boréal
- Northern College
- Confederation College
- Conestoga College
- Centennial College
- Cambrian College

What is an apprenticeship?

An apprenticeship allows students to learn a skilled trade while gaining paid on-the-job work experience. Apprenticeship programs are usually offered through a college or vocational school and help prepare you for a career in the trades. The programs are structured to provide both classroom learning and on-the-job experience.

Although most of the learning in an apprenticeship is on the job, there is also an in-class component through a college. Apprentices typically spend 80-85% of their education and training in the workplace.

At the end of the apprenticeship training program, the apprentice becomes a journey person and is certified to work in the trade (Government of Canada, 2014).

To qualify for apprenticeship in Ontario you must:

- Be at least 16 years of age
- Have legal permission to work in Canada (i.e. have a valid social insurance number)
- Meet the educational requirements of your chosen trade
- Have a sponsor in Ontario (most sponsors are employers who will hire, train and pay you during your apprenticeship)

To apply for an apprenticeship, you must apply online through the Government of Ontario, Ministry of Advanced Education and Skills Development.

Median and average wages and salaries in Durham Region

The average and median wages and salaries for individuals employed in the heavy-duty equipment mechanics occupation in Durham Region is as follows:

Median wages and salaries – **\$60,128**

Average wages and salaries - **\$56,521**

Salaries will depend on the position and industry, but heavy-duty equipment mechanics typically start off with average salaries between \$35,000 and \$40,000 per year (Ontario Colleges, 2016).

(Sourced from Statistics Canada 2011 data, custom purchased by the Durham Workforce Authority).

Employed by Place of Work and Place of Residence

Place of Work (POW) – is defined as individuals employed within the Durham Region.

Place of Residence (POR) – is defined as Individuals who reside within the Durham Region.

The number of individuals employed within Durham Region (POW) in the heavy-duty equipment mechanics occupation is **170**.

The number of Durham Region residents employed (POR) in the heavy-duty equipment mechanics occupation is **265**.

(Sourced from Statistics Canada 2011 data, custom purchased by the Durham Workforce Authority).

Employment Prospects

The list below represents a sample of employment prospects for those seeking employment in the heavy-duty equipment mechanics occupation within the Durham Region.

Ross Doble Inc. – Brock

Glasvan Great Dane – Whitby

Bob Mark New Holland Sales Ltd. – Brock

Durham Truck & Equipment Sales & Service –
Ajax

TBG Environmental – Pickering