

## NOC 7521 – Heavy Equipment Operators (except crane)

### Description of occupation

Heavy equipment operators operate heavy equipment used in the construction and maintenance of roads, bridges, airports, gas and oil pipelines, tunnels, buildings and other structures; in surface mining and quarrying activities; and in material handling work. They are employed by construction companies, heavy equipment contractors, public works departments and pipeline, logging, cargo-handling and other companies (Statistics Canada, 2016).

### Illustrative example(s):

- Backhoe operator
- Bulldozer operator
- Excavator operator
- Gradall operator
- Grader operator
- Heavy equipment operator
- Heavy equipment operator apprentice
- Loader operator – construction
- Side boom tractor operator
- Surface mining equipment operator

### Heavy equipment operators perform some or all of the following duties:

- Operate heavy equipment such as backhoes, bulldozers, loaders and graders to excavate, move, load and grade earth, rock, gravel or other materials during construction and related activities
- Operate bulldozers or other heavy equipment to clear brush and stumps prior to logging activities and to build roads at logging and surface mining sites
- Operate heavy equipment with pile driver head to drive piling into earth to provide support for buildings, bridges or other structures
- Operate heavy dredging equipment to deepen waterways or reclaim earth fill
- Operate heavy paving and surfacing equipment to lay, spread or compact concrete, asphalt and other surface materials during highway and road construction
- Operate power shovels to excavate rock, ore or other materials from open-pit mines, strip mines, quarries or construction pits
- Operate heavy equipment to move, load and unload cargo
- Conduct pre-operational checks on equipment and clean, lubricate and refill equipment.

### 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 education required

Heavy equipment operator programs train students to operate bulldozers, tractor loader backhoes, hydraulic excavators and other heavy equipment. Theory courses in equipment maintenance, operating techniques and workplace safety, equipment operation and maintenance techniques (Ontario Colleges, 2016).

Ontario college heavy 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.

Heavy equipment operator programs range in duration. The average program requires 240 hours of in-class training, which combines theoretical knowledge of the heavy equipment operator occupation with practical skills to complement apprentice on-the-job training.

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

- Conestoga College
- Fleming College
- Durham 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, once the criteria above is met.

## Median and average wages and salaries in Durham Region

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

Median wages and salaries – **\$52,286**

Average wages and salaries - **\$51,771**

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

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

## 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 equipment operator occupation is **285**.

The number of Durham Region residents employed (POR) in the heavy equipment operator occupation is **420**.

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

## Employment Prospects

Most Heavy Equipment Operators in Ontario work in the Construction sector, full-time, and may have to travel to job-sites away from home.

Typical employers include: municipal governments, highway and heavy construction firms, constructions site maintenance firms, primary steel producers and building construction firms.

This list below represents a sample of employment prospects for those seeking employment in the heavy equipment operator occupation within Durham Region.

Adamson Systems Engineering – Scugog

Harsco Metals & Minerals – Whitby

OPTILINX Systems – Oshawa

Appco Paving Ltd. – Ajax

Ferro Canada Inc. – Uxbridge

The Miller Group – Pickering