

"High-efficiency" condensing-flue oil furnaces

Eneroil Research Company Limited of Toronto has developed a "high-efficiency" condensing-flue oil furnace that is expected to be on sale in Canada by the summer of 1983.

Furnaces equipped with the device, a "condensing-flue heat exchanger", are currently being tested by the Canadian Standards Association (CSA) in Toronto, and Esso Home Comfort has been granted Canadian marketing rights.

At the same time the new furnaces are available, Esso hopes to have a "retrofit" kit which would enable owners of existing oil furnaces to increase their efficiency by up to 50 per cent.

The cost of the new furnace installed is expected to be about \$3 000 while the retrofit would be about \$1 000. The unit is designed to boost the seasonal effi-

ciency of a conventional oil furnace to 90 per cent from the usual 60 per cent, cutting the average oil bill accordingly.

Gases and wastes cleaned

The condensing-flue oil furnace uses a "scrubber" to clean gases and other wastes produced by burning oil. The scrubber uses a fine water spray to dilute the acidic wastes, using two thirds of a gallon of water for every gallon of oil burned.

The condensing-flue principle was first applied to gas furnaces, making possible the new high-efficiency units that have come on the market in the past two years. These "high-efficiency" furnaces require less fuel because they do not send heat up the chimney like conventional furnaces. Instead, the condensing flue

captures exhaust heat and keeps it inside the home. No chimney is required, although a duct does vent the furnace outside the building.

Retrofit modifications are not permitted to gas furnaces under Ontario provincial regulations, primarily because of concern for the safety of modifying natural-gas appliances. However, oil retrofits — such as installation of retention-head burners and chimney dampers — are permitted, opening the door for approval of add-on condensing flues.

Market Planning Manager for Esso Home Comfort John Beatty said his company wants to be sure the Eneroil unit is as reliable and as efficient as claimed before putting it on the market. Esso's main concern is that the scrubber unit will become clogged by minute contaminants in household water supplies, even though the unit is protected by water filters. If the scrubber does not dilute wastes sufficiently, their acidity would corrode and ruin the unit.

Eneroil President Robert Smith said the condensing-flue unit worked well in his company's own tests, and he is confident it will meet all requirements.

Major facelift for Ottawa's Rideau Canal

Three of the locks in the Ottawa section of the Rideau Canal are in the process of being thoroughly reconstructed as work crews shore up the walls of the locks.

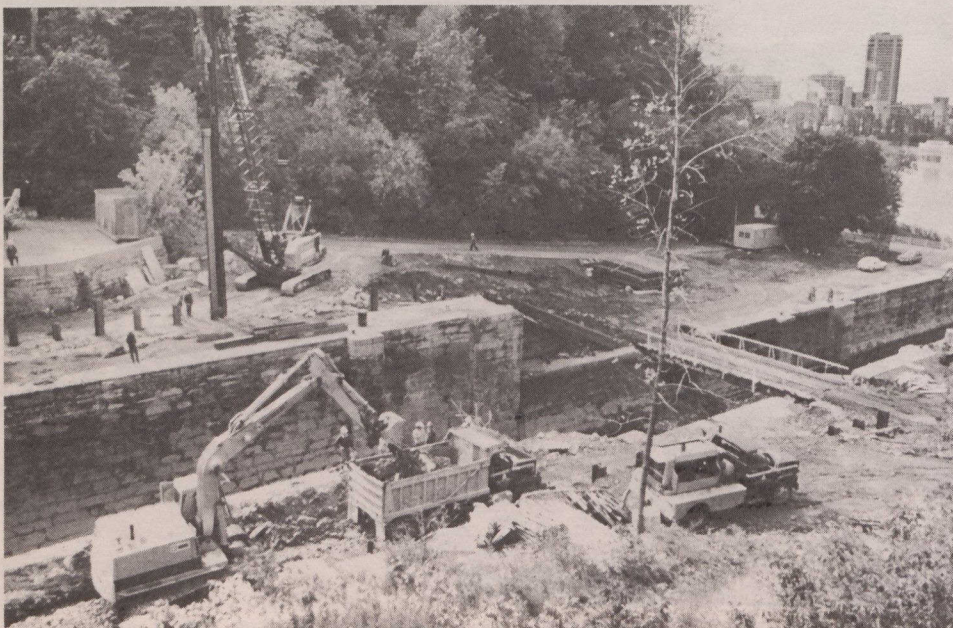
The \$8-million renovation project to the canal near the Ottawa River is expected to be finished by June 1984, with only the eight locks just north of the National Arts Centre in the city closed to boaters next summer. All other sections will remain open in 1983.

During the work, the original limestone blocks will be removed, cleaned, repaired and if possible put back in place.

It is expected that some of the blocks will have to be replaced.

Two of the three locks under construction have never been repaired in the 150 years since the canal opened, and the third lock has not been worked on since the 1920s. Canal supervisor John Bonser said that the other five locks in the area would not require repairs for a number of years.

Although 1 006 boats used the Ottawa locks last year, canal officials hope the work will cause only minor inconveniences to area boaters next summer.



Crews work on reconstructing the Rideau Canal locks.

Women in electronics

An Ottawa group formed last spring to support women working in the electronics industry is getting into full swing with the start of its fall program.

The group was founded by Eva Silverman, a manufacturing representative for Gidden Morton Associates, after visiting the United States where a similar group has been running successfully for several years.

Ms. Silverman and a volunteer steering committee of ten women working in the electronics industry put out a newsletter and run monthly workshops and information sessions.

Included in the initial session this September was a film on office automation presented by Catherine Bradform from the Micom Company and a presentation by Paul Hebert of Officesmiths Incorporated on how to convert paperwork into a software system.

Although the Women in Electronics group was formed primarily for women already in the field, many of the women who attended the first meeting were considering electronics as a career and wanted to learn more about the industry. Depending on participation, the group hopes to hold more in-depth workshops and organize activities such as tours.