New compact gas furnace is efficient and safe

A Canadian company has introduced one of the world's most efficient and safest gas furnaces on the market.

The compact new furnace, developed by Lennox Industries of Toronto, uses a revolutionary technology to achieve heating efficiencies ranging from 96 to 98 per cent (efficiency approved by the Canadian Gas Association). The average furnace in Canada is 55-60 per cent heat efficient. The G14 Pulse, as the unit is called, can reduce homeowners' gas heating bills by more than 40 per cent.

New technology used

Where conventional furnaces heat with an open gas flame, sending almost half of the heat produced up the chimney, the pulse furnace uses a totally new technology for home heating. It operates on the pulse combustion process which ignites minute quantities of gas at a rate of 68 times per second within a closed combustion chamber. In addition, the unit has a series of heat exchange surfaces to recover almost every British thermal unit (BTU) of heat produced.

Once begun, the pulse process becomes self-perpetuating, allowing the spark igniter and combustion air blower to be turned off. As the products of combustion travel through the components of the furnace, a blower moves air across them to absorb almost all the heat produced. This heated air is then circulated throughout the home for heating. The Pulse unit even recaptures the latent heat of combustion gases through a fin-and-tube heat exchanger.

The unit's exhaust is comparatively cool, ranging from 38 degrees Celsius to 52 degrees Celsius and can be vented out the side of the house through plastic piping, thus eliminating the need for a costly chimney.

The Lennox Pulse furnace, in five capacities ranging from 40 000 to 130 000 BTUs, is designed to meet the heating needs of any home. This new furnace was designed to replace any of the estimated 2.25-million forced warm air gas furnaces installed during the past 20 years. It accepts all furnace accessories, including central air conditioning.

The Pulse has been under development for six years and has undergone extensive field testing throughout Canada and the United States during the past three heating seasons. During field testing the new furnace confirmed the efficiency and reliability features developed by Lennox's research and development laboratories, with efficiencies easily reaching the 98 per cent mark. Analysis of units, after thousands of heating cycles, showed little wear. The heat exchange section of the Pulse carries a 20-year warranty. The design of the new furnace also makes it the safest gas furnace on the market.

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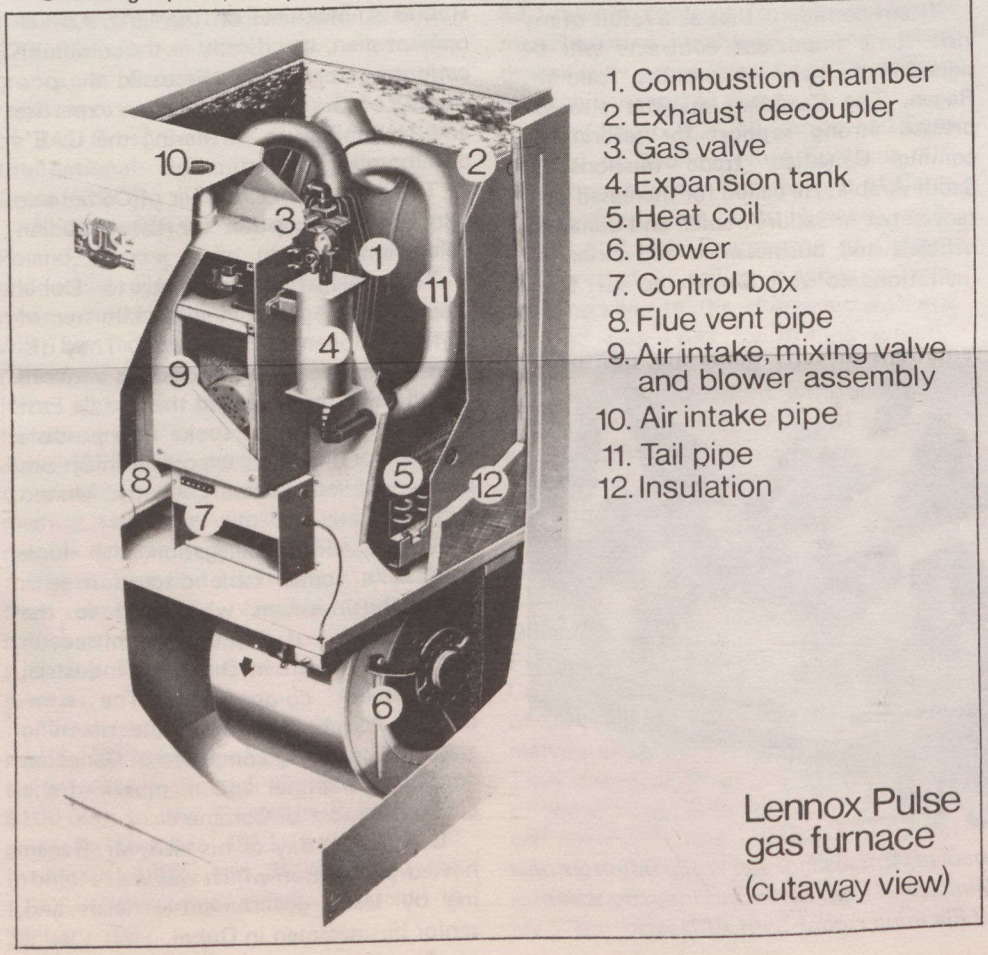

1. Combustion chamber
2. Exhaust decoupler
3. Gas valve
4. Expansion tank
5. Heat coil
6. Blower
7. Control box
8. Flue vent pipe
9. Air intake, mixing valve and blower assembly
10. Air intake pipe
11. Tail pipe
12. Insulation

Lennox Pulse gas furnace (cutaway view)

Natural Gas

Northern Telecom signs pact with Japanese firm

Northern Telecom and Mitsui & Company, Limited of Japan have signed a long-term agreement under which Mitsui will distribute Northern Telecom communications products.

The agreement will make Northern Telecom's *SL-1* systems available in the Japanese market for the first time. Northern Telecom and Mitsui expect to establish a long-term relationship with the Nippon Telegraph and Telephone Public Corporation, the government-owned telephone company, and to sell *SL-1* systems to Japanese end-users, directly and through subdistributors.

SL-1 systems for sale in Japan will be manufactured at Northern Telecom's facilities in Santa Clara, California.

The *SL-1* is Northern Telecom's computerized fully digital private branch exchange. To date, Northern Telecom has more than 5 000 systems sold or on order, serving more than 2 million lines in 40 countries throughout the world.

Luger wins gold

Canadian luge team member Miroslav Zajonc won the gold medal at the world championships held recently in Lake Placid, New York.

Zajonc, 22, made four record runs on the 1 000-metre chute to edge Sergei Danllin of the Soviet Union for the world championship. The Canadian team member, a Czechoslovakian who now lives in Toronto, had a combined time of 2 minutes 47.232 seconds.

Zajonc, who came to Canada only recently, said he would apply for Canadian citizenship as soon as possible so he could compete in the 1984 Winter Olympic Games in Sarajevo, Yugoslavia.