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USE OF GAS BOILERS IN APARTMENT BUILDINGS

V. M. BAKULINA, senior lecturer;

U. M. BAIDAK, student,

National University of Life and Environmental Sciences of Ukraine

E-mail: bakulina88@ukr.net

To reduce heating and hot water losses in buildings up to 9 storeys, it is possible to provide an autonomous heating system using gas boilers.

Gas boilers are the most popular type of heating device, due to the fact that until 2010 gas was the cheapest type of fuel (as it is the primary source of energy). The main purpose of a gas boiler is to generate heat for space heating and water heating by burning fuel. Natural gas can be used as a fuel: propane or butane, as it is inexpensive, available, and perfectly suited for heating boilers.

Depending on the placement, gas boilers can be wall-mounted (boilers are placed directly on the wall or on a special frame, they are mostly small in size and power (from 24 to 100 kW), although their structure is more complex than floor-mounted boilers) or floor-mounted (large, powerful boilers that are placed on a special platform or simply on the floor). It is better to choose a double-circuit boiler that can provide heat and hot water.

The boiler output must be selected according to the heat loss, number of people living in the room, water consumption and total floor space. Main advantages:

- prevalence, wide range (you can buy gas boilers in almost any heating equipment store, while a solid fuel or combined boiler of the desired model may have to be searched for);
- Availability and low price of fuel (there are not many non-gasified areas, but even in them, a gas boiler can be used by connecting it to a liquefied propane-butane cylinder);
- high efficiency (especially for turbocharged boilers with a closed combustion chamber);
- ease of installation (a gas boiler requires a chimney, but there are no increased requirements for its material and design) and further operation.

At the same time, gas heating boilers have their drawbacks.

- with a large area of living quarters (more than 50 m²) and insufficient thermal insulation of the house, heating with liquefied gas, especially in the northern regions, becomes economically unprofitable and quite difficult technically - due to frequent replacement of cylinders. In such a situation, it is easier to install a liquid fuel boiler. The disadvantages of LPG boilers also include the explosiveness of the fuel; if it is impossible to equip a separate room for the boiler room, it is better to give preference to a liquid or solid fuel boiler. On the other hand, heating equipment

connected to the main gas pipeline does not have these disadvantages, so in a private house located in a gasified settlement, in most cases it is advisable to install a gas heating boiler.

- A drawback that arises once is the paperwork.



Fig. 1. Gas boilers: a – single-circuit boiler; b – double- circuit boiler

The use of gas boilers makes it possible to reduce operating costs during transport and when heating apartments.

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ОСОБЛИВОСТІ ТЕХНІЧНОГО ОБСТЕЖЕННЯ ПРИЛЕГЛИХ ОБ'ЄКТІВ ІСНУЮЧОЇ ЗАБУДОВИ

Н. О. КОСТИРА, к.т.н., доцент;

В. М. БАКУЛІНА, ст. викладач

Національний університет біоресурсів і природокористування України

E-mail: iakos62@ukr.net; bakulina88@ukr.net

У зв'язку з тенденцією будівництва нових житлових комплексів на територіях недіючих підприємств в історичних районах Києва, виникають вимоги щодо безпеки під час нового будівництва об'єктів в умовах ущільненої забудови, які охоплюють безпеку прилеглої забудови і території, безпеку об'єкта, що будується, безпечність виробничого процесу з виконання будівельно-монтажних робіт [1-3]. Ці норми повинні виконуватися не тільки