

THEORETICAL AND PRACTICAL ASPECTS OF WORKING OUT ON THE FURNACE BURNER UNIT FOR GAS-FIRED FIRETUBE BOILERS

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Aim. Raising the level of the technical, economic, ecological indices of small and middle sized gas-fired hot-water boilers.

Results. The modern boilers being developed for the municipal heat network companies should have appropriate technical indices and high level of ecological performance as well as be cheap and not complicated in manufacturing and maintenance. Creation of such equipment seems to be a challenge.

The technical decision on furnace burner unit working out has been offered. The unit having integrated burner device also allows making modern boilers accessible and contributes accelerating technical modernization of the companies.

Conclusions 1. Municipal heat network companies's firetube boilers reveal significant drawbacks at operation. They are:

- Damages of heating surfaces owing to irrational thermal distribution between furnace and smoke tubes bunch;
- In practice the boilers often reveal insufficient technological effectiveness (low reliability and maintainability, diseconomy at variation in loads etc.);
- Diffusion compact burners hardly possible to consider expedient for the boilers due to such burner's high cost.

2. Furnace burner unit working out for firetube boilers can contribute enhancing technological effectiveness and raise the level of the technical, economic and ecological indices of such boiler type.