# 1 POLISH PLISN 0032-3012 TECHNICAL REVIEW

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# POLISH TECHNICAL REVIEW

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# Polish machines for brown coal opencast mining

The FAMAGO S.A. Factory of Surface Mining Machines, Zgorzelec is Poland's sole manufacturer of basic machines for strip mines. The present issue brings a review of the present production programme of this factory. The programme covers, among other items, excavators, dumping conveyors, self-propelled crawler conveyors. These are heavy-duty machines whose design has been adapted to the requirements of the mines. The major part of these machines is operating in Polish coal mines. Some of them have been exported. See details on p. 2

### New hydraulic excavators

The BRAWAL-type hydraulic excavators made at the BU-MAR-LABEDY Machinery Industrial Complex, Gliwice feature a number of unconventional design solutions such as: utilization of the energy of the falling fixtures, fastening of the working accessories on a sliding trolley which is moved along the beam on skids by means of a hydraulic cylinder, application of hydraulic cylinders for lifting the body, equipment of the excavator with a special hydraulic-powered blocking valve. The application of those technical design solutions has made it possible to reduce the excavator's weight by 20% in comparison with that of excavators based on traditional solutions. See article on p. 6

## Powdered-fuel burners with a low emission of nitrogen oxides

Excessive amounts of noxious nitrogen oxides are emitted by the power engineering industry. The design of a low-emission turbulent burner ensuring a low emission of this noxious compound has been developed at the Institute of Power Engineering, Warsaw. The burner is adapted for use with the existing milling circuits. It ensures an intense heating of the dust-and-air mixture by the combustion gases and a gradual combustion (combustion of volatile matter with an insufficient amount of the primary air and a retarded mixing of the fuel with secondary air). See article on p. 12

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Front cover: A set for testing noise and gain of two ports developed by the Warsaw University of Technology

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