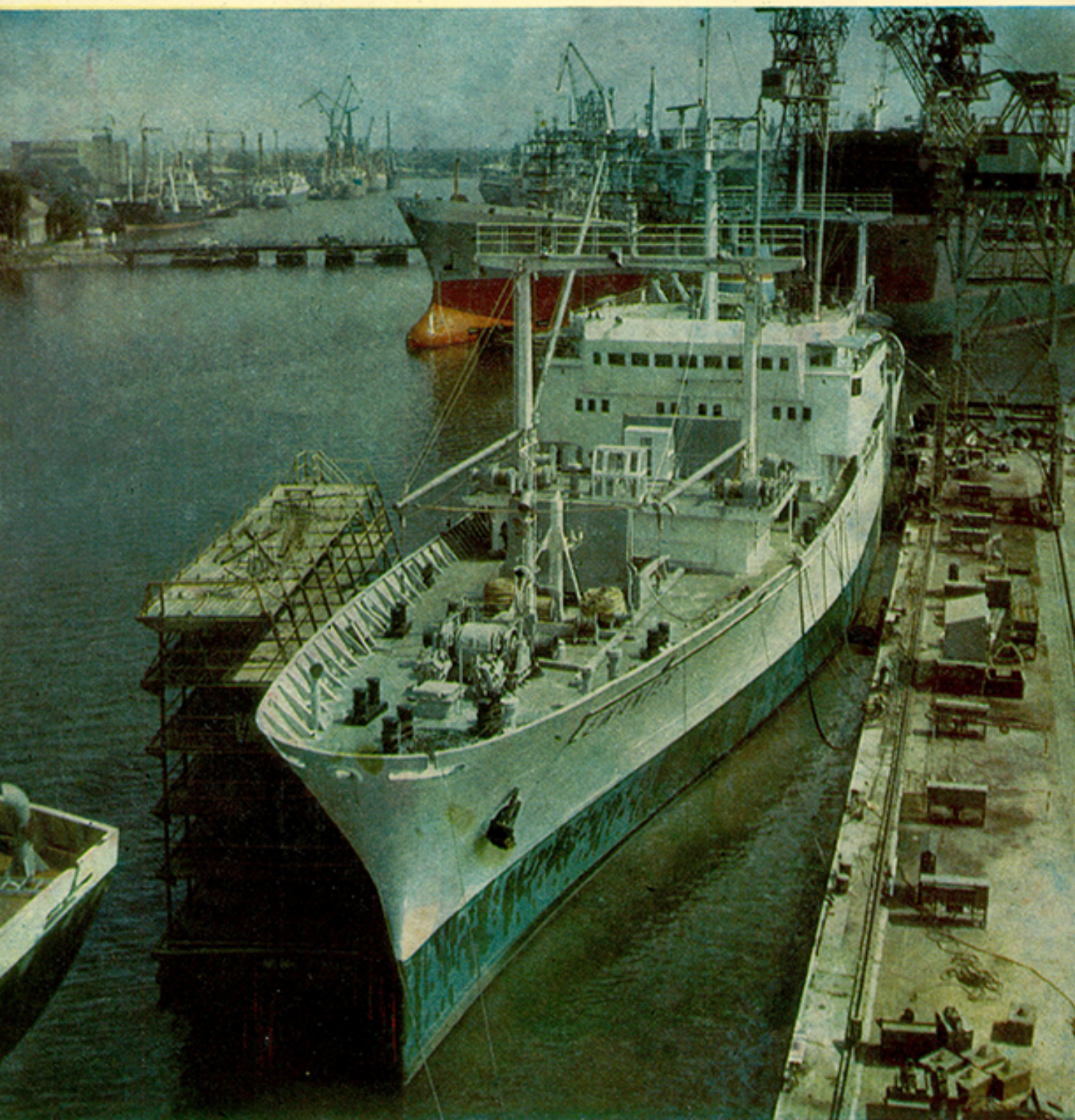




# POLISH TECHNICAL REVIEW



9

109/1978



# POLISH TECHNICAL REVIEW

PUBLISHERS OF TECHNICAL PERIODICALS FOR THE CENTRAL TECHNICAL ORGANIZATION (NOT)  
00-950 Warsaw, ul. Czackiego 3/5, P.O.B. 1004, Tel.: 39 11 99. Issued in English, French, German and Russian

## CONTENTS

### PLASTIC WORKING

- Pressure-lubricating dies . . . . . 2  
Valve seal rings manufacturing technique . . . . . 4

### ELECTROTECHNICS

- Thyristorized feed drive systems for N/C machine tools . . . . . 6  
Power converter with thin-film ferromagnetic elements . . . . . 7

### NUCLEAR TECHNOLOGY

- Isotopic weighing devices for belt conveyor flights . . . . . 9  
Semi-hot cells for work with gamma isotopes . . . . . 11

### SHIPBUILDING

- Fireboat SP-2700 . . . . . 13  
Suppliers of ship equipment . . . . . 15

### FOOD INDUSTRY

- Apparatus for testing evaporator condensate . . . . . 17  
Isotopic measurement of the density of liquids . . . . . 19  
Cartoning line . . . . . 21

- ECONOMIC SURVEY . . . . . 5, 16

### Pressure-lubricating dies

The simplicity of the constructional design, the possibility of mounting them on bull blocks and chain drawbenches, the simpler geometric shape of the drawholes, the efficient pressure chamber sealing system, an advantageous distribution of stresses in the material being drawn, reduced sintered carbide consumption, reduced power consumption of the drawing machine, improved surface quality of the finished product, increased drawing speed, the opening of new technological possibilities, are only some of the advantages of pressure-lubricating dies developed at the Institute of Ferrous Metallurgy in Gliwice. For details see article on p. 2.

### Isotopic weighing devices for belt conveyor flights

Three types of isotopic belt conveyor scales designed at the Nuclear Equipment United Works POLON in Warsaw are presented on p. 9. Their use is justified in tough industrial conditions in which it would be unprofitable or simply impossible to use and maintain highly accurate electromechanical balances. A detailed description and data listed in the Table enable to select the appropriate type of scales.

### Apparatus for testing evaporator condensate

The Polish industry which is specialized in the supplies of "turn key" sugar plants has at its disposal, among other things, numerous detailed solutions guaranteeing a high processing output. Such solutions include the condensate analyser (with recorder) which provides information about the quality of the material processed and possible disturbances in the sugar purification process. They also protect steam boilers against damage caused by the penetration of sugar to boiler feed water. Page 17.

Programmatic Council: B. Doweyko, L. Drecki, S. Grużewski (President), Z. Kotarski, Z. Makomski, L. Olejarsz, Z. Policewicz, E. Szwarc, K. Warchol, S. Werewka, A. Hanftwurel

Editorial staff: A. Hanftwurel (editor-in-chief), J. L. Toeplitz (assistant editor), S. Hilscher (managing editor) J. Chmielewska, E. Karska, Z. Schellenberg, A. Witkowski

English version: E. Karska

Translations: H. Stepień, S. Krauze, J. Luczaj, R. Tymczyński

Grahic layout: F. Barącz

Production manager: A. Dziwulska-Kijas

Advertising section: T. Pachnowski

Subscription orders should be addressed to the "Ars Polona-Ruch", 00-950 Warsaw, P.O.B. 1001, Krakowskie Przedmieście 7 or to one of the representatives of this firm abroad. The annual subscription rate (12 issues) amounts to US \$ 24. — or the equivalent in other currencies. In the socialist countries, catalogue prices of the local distribution centres apply

Cover photo: A ship being fitted at the quay in Gdańsk (photo Z. Mirolto)

Photos in the issue: KAW, A. Pachulski

Printing office: LDA — Zakład 2 — Typo, zam. 1946/78

INDEX No 36915