## CONTENTS

INTR	ODUCTION4
1 B/ 1.1 1.2 1.3 1.4 1.5 1.6	ASIC PHYSICAL PROPERTIES OF FLUIDS
2 B	ASIC EQUATIONS USED IN HYDRAULIC PROCESSES19
2.1 2.2 2.3 2.4 2.5	Basic Hydrodynamic Equations         19           Equation of Conservation of Energy — Bernoulli's Equation         24           Pressure Change Propagation Velocity         27           Zhukovsky's Theorem — Water Surge         32           Real Liquid Flow Character         36
3 RI	EAL LIQUIDS FLOW PROPERTIES41
3.1 3.2 3.3	Newtonian Liquids
4 TI	ECHNOLOGY WATER JET CUTTING57
4.1	Water Jet Cutting Principle
4.2	Recommended Quality for Water Jet Cutting
4.3	Abrasive
	3.1 Garnet GMA Abrasive
4.3	3.2 Abrasive Materials Used in Practice66 Cutting Area Surface and Application Potentials for Technology71
4.5	Water Jet Cutting Head
4.6	Water Jet Quality and Cutting Performance 76
4.7	Abrasive Recycling Methods
5 C	ATEGORIZATION FACTORS FOR WATER JET CUTTING83
5.1	Factors of Basic Physical Properties and Hydrodynamic Relations of Liquids 84
5.2	Technical Factors Affecting Hydroerosive Production Process
5.3	Technological Factors Affecting Hydroerosive Cutting Surface91
6.1 6.2	PACT OF SELECTED TECHNOLOGICAL AND MATERIAL PARAMETRES IBRATION GENERATION ON WATER JET TECHNOLOGICAL HEAD 98 Outlook of studeid depended and independed parametres during experiments 98 Structure of performed experiments extends of technological and material parametres 98
6.3	Location where the experiments werw perforded
6.4	Technical Systems for Vibrations Measuring, processing and Evanuating
6.5	Evaluation of Experiments
6.6	Recomendations
7 CC	ONCLUSION142
LITER	RATURE143