

SPIS TREŚCI

Professor Oleksandr Golubenko	
PREFACE	
Karol Franciszek Abramek	
EFFECT OF LUBRICATING OIL TEMPERATURE ON THE PHENOMENON OF EXHAUST GAS SCAVENGING.....	6
Viktor Bugaenko, Yuriy Osenin, Stanisław Sosnowski	
AN INFLUENCE OF CHARACTERISTICS OF TWO-COMPONENT FLOW ON THE SUPPLY EFFECTIVENESS OF ABRASIVE MATERIAL INTO THE CONTACT AREA OF A LOCOMOTIVE WHEEL AND RAIL	11
Zbigniew Burski, Joanna Tarasińska, Izabela Mijalska-Szewczak	
AN ANALYSIS OF TRACTION DRIVING PARAMETERS IN A MOTORWAY INFRASTRUCTURE WITH THE SID STATISTICAL METHOD	17
Bogusław Cieślowski	
MODELLING OF THE VIBRATION DAMPING IN AN OPERATOR'S SEAT SYSTEM	24
Bożena Gładyszewska, Anna Ciupak	
EFFECT OF TEMPERATURE ON THE VIABILITY OF BUCKWHEAT (CV. KORA) SEEDS.....	32
Krzysztof Gołacki, Grzegorz Bobin, Zbigniew Stropek	
BRUISE RESISTANCE OF APPLES (MELROSE VARIETY).....	40
Aleksandr Golubenko, Pavel Nosko, Yuliya Medintseva	
CREATION OF HIGH-LOADED HYPERBOLOID GEARS WITH IMPROVED AND EXTREME GEOMETROKINEMATIC PARAMETERS.....	48
Victor Gribov, Denis Ratov, Tatiana Balitskaya, Nataliya Korobka, Tatiana Pecholat, Anna Smorodina	
SIMULATION OF HYPERBOLOID GEARS MODELLING	54
Tomasz Guz	
THE USE OF IMAGE ANALYSIS TO ESTIMATE HARVEST RIPENESS OF APPLES	61
Tomasz Guz	
AN INFLUENCE OF QUARANTINE CONDITIONS ON ELASTICITY MODULUS IN APPLES STORED IN A REGULAR AND AN IRREGULAR STORE	69
Marek Horyński	
REASONABLE ENERGY MANAGEMENT IN AN INTELLIGENT BUILDING	78

Marek Horyński	
INDOOR CLIMATE CONTROL IN EIB SYSTEM	85
Waldemar Izdebski	
JERUSALEM ARTICHOKE - POTENTIAL AND POSSIBILITIES OF USE IN POWER INDUSTRY	93
Janusz Jakóbiec, Aleksander Mazanek	
COMPARATIVE ASSESSMENT OF SL/CF SAE 5W/30 LUBRICATING OIL SERVICE IN ENGINES FUELLED BY 95 HYDROCARBON GASOLINE AND GASOLINE WITH 5%(V/V) ETHANOL ADDITIVE	99
Magdalena Kachel-Jakubowska	
INFLUENCE OF ACID NUMBER AND PEROXIDE NUMBER CONTENT ON THE QUALITY OF RAPE SEEDS FOR CONSUMPTION AND BIOFUEL INDUSTRY.	114
Zbigniew Kobus, Beata Ślaska-Grzywna, Dariusz Andrejko	
INVESTIGATION OF ACOUSTIC POWER RADIATED BY ULTRASONIC PROCESSOR INTO VEGETABLE OILS..	121
Józef Kowalczuk, Norbert Leszczyński	
AN INFLUENCE OF THE WORKING PARAMETERS OF ALINA SUPERNOVA COMBINE ON HARVEST QUALITY OF CARROT ROOTS	128
Józef Kowalczuk, Janusz Zarajczyk	
QUALITY ANALYSIS OF THE WORK OF A BELT CONVEYOR SYSTEM IN SOWING FINE VEGETABLE SEEDS	134
Ryszard Kulig, Janusz Laskowski	
ENERGY REQUIREMENTS FOR THE PELLETING OF BROILER PREMIUM GROWER DIETS WITH A DIFFERENT SOYBEAN OIL CONTENT	138
Andrzej Kuranc, Joanna Tarasińska	
AN ANALYSIS OF SIGNIFICANCE LEVEL OF RELATION BETWEEN AMBIENT TEMPERATURE AND EXHAUST EMISSION IN THE INITIAL TERM OF SI ENGINE'S WORK	145
Maciej Lisowski	
EVALUATION OF AIR FILTERS IN TRUCK VEHICLE ENGINES	155
Edmund Lorencowicz, Jacek Uziak	
FUEL CONSUMPTION IN FAMILY FARMS	164
Pavel Nosko, Vladimir Breshev, Pavel Fihl	
MULTIPARAMETER SYNTHESIS OF NON-CONTACT MACHINE DRIVE.....	172
Tomasz Oniszcuk, Leszek Mościcki	
PHYSICAL PROPERTIES AND ENERGY CONSUMPTION OF THE MANUFACTURE OF EXTRUSION-COOLED CARP FEED ENRICHED WITH ECHINACEA.....	181

Tomasz Oniszczyk, Leszek Mościcki	
LOW TEMPERATURE STORAGE OF THERMOPLASTIC STARCH	192
Jarosław Osiak, Jacek Skudlarski, Waldemar Izdebski	
ASSESSMENT OF FARMERS' POTENTIAL DECISIONS ON SETTING UP PERENNIAL PLANTATIONS OF ENERGY PLANTS.....	199
Jarosław Osiak, Jacek Skudlarski, Waldemar Izdebski	
ASSESSMENT OF PROFITABILITY LEVELS OF AGRICULTURAL BIOMASS PRODUCTION FOR PURPOSES OF THE PROFESSIONAL ENERGY SECTOR	205
Marian Panasiewicz	
AN INFLUENCE OF KERNEL CONDITIONING METHOD ON ENERGY CONSUMPTION DURING FLAKING PROCESS	211
Marian Panasiewicz, Jacek Mazur, Kazimierz Zawislak, Paweł Sobczak	
AN INFLUENCE OF PRELIMINARY RAPESEED PROCESSING ON OIL EXTRUSION	217
Sergiy Pastushenko, Wojciech Tanaś, Nikolay Ogiyenko	
RESEARCH ON INFLUENCE OF CAVITATION PROCESS ON CLEANING VEGETABLES AND MELON SEEDS BY HYDRO-PNEUMATIC SEPARATOR	223
Zenon Pirowski, Marek Gościański	
CONSTRUCTION AND TECHNOLOGY OF PRODUCTION OF CASTED SHARES FOR ROTATING AND FIELD PLOUGHS.....	231
Leonid Petrov, Anatoliy Yakovenko, Alexander Melnik, Janusz Nowak	
WORKING OUT THE EQUATION OF THE "GRAVIMET" TRACTOR MOVEMENT BY THE METHOD OF OSTROGRADSKY - JACOBY.....	240
Krzysztof Plizga	
AN EVALUATION OF THE TECHNICAL STATE OF A STARTER USING THE HALL EFFECT - PART II	244
Stanisław Pysz, Aleksander Karwiński, Edward Czekaj	
AN ANALYSIS AND COMPARISON OF PROPERTIES OF AL-SI ALLOY AUTOMOTIVE CASTINGS MADE BY RAPID PROTOTYPING AND STANDARD LOT PRODUCTION.....	251
Stanisław Rudy	
ENERGY CONSUMPTION IN THE FREEZE - AND CONVECTION-DRYING OF GARLIC.....	259
Andrey Ryzhakov, Ilya Nikolenko, Kazimierz Dreszer	
SELECTION OF DISCRETELY ADJUSTABLE PUMP PARAMETERS FOR HYDRAULIC DRIVES OF MOBILE EQUIPMENT	267
Józef Sawa	
RISK ASSESSMENT OF THE PERFORMANCE OF PLANT PROTECTION	277

Oksana Sergiyenko, Yuriy Osenin AN INFLUENCE OF GEOMETRICAL CHARACTERISTICS OF FRICTIONAL ELEMENTS ON THE EFFECTIVENESS OF DISK BRAKE	285
Sergiy Shevchenko, Andriey Vishnevsky OPTIMIZATION OF WORM GEARS PARAMETERS BY THE NON-LINEAR PROGRAMMING METHODS	290
Liudvikas Spokas, Dainius Steponavičius OPTIMIZATION OF FUEL CONSUMPTION DURING THE HARVEST OF WHEAT	298
Valeriy Stayitskiy, Pavel Nosko, Pavel Fil EXERGONOMICAL OPTIMIZATION OF HEAT EXCHANGING DEVICES BUILT INTO A THERMAL CYCLE MACHINE	304
Mariusz Szymanek, Paweł Sobczak SOME PHYSICAL PROPERTIES OF SPELT WHEAT SEED	310
Mariusz Szymanek COMPARISON OF POWER CONSUMPTION DURING THRESHING OF DENT AND SWEET CORN COBS	321
Joanna Szyszlak-Bargłowicz, Janusz Zarajczyk TIMBER WASTE AS A SOURCE OF ENERGY	329
Georgij Tajanowskij, Wojciech Tanas, Romashko Jurij TRACTION DYNAMICS OF THE ALL-WHEEL DRIVE MACHINE TRACTOR UNIT WITH HINGED SOIL PROCESSING EQUIPMENT	335
Genadiy Topilin, Anatoliy Yakovenko, Sergiy Umiński, Janusz Nowak A HYDRODYNAMIC INSTALLATION FOR THE PRODUCTION OF BIODIESEL FUEL	342
Genadiy Topilin, Anatoliy Yakovenko, Sergiy Umiński, Janusz Nowak INSTALLATION FOR MICROFILTRATION OF VEGETABLE OILS	347
Genadiy Topilin, Anatoliy Yakovenko, Sergiy Umiński, Janusz Nowak PRODUCTION OF BIODIESEL FUEL FOR SELF-PROPELLED AGRICULTURAL MACHINERY	352
Małgorzata Trojanowska, Krzysztof Nęcka THE USE OF ALTERNATIVE REGRESSION MODELS TO DETERMINE PEAK LOADS IN RURAL TRANSFORMER STATIONS	357
Małgorzata Trojanowska, Krzysztof Nęcka DETERMINATION OF TYPICAL ELECTRIC POWER LOADS FOR RURAL END USERS	364

Piotr Wanke, Adam Koniuszy	
AN ANALYSIS OF WEAR OF SLIDE PAIRSLUBRICATED BY CLASS CC 30 LUBRICANTSMIXED WITH DIESEL FUELS	370
Jacek Wasilewski	
INFLUENCE OF THE WEAR OF SPRAY NOZZLE TIPS ON EXHAUST GAS TOXICITY IN DIESEL ENGINES	377
Grzegorz Wcisło	
AN EFFECT OF THE SHARE OF CSME AND RME BIOCOMPONENTS ON THE CETANE NUMBER AND DISTILLATION TEMPERATURES OF BIOFUELS	385
Janusz Wojdalski, Bogdan Drożdż, Agnieszka Powęzka	
EFFECTIVENESS OF ENERGY AND WATER CONSUMPTION IN A POULTRY PROCESSING PLANT	395
Roman Yaremychuk, Vasil Vozniy, Yaroslav Femyak	
CAVITATIONAL - PULSATING TECHNOLOGIES AS THE MEANS OF REDUCTION OF POWER CONSUMPTION DURING DRILLING OF A WELL	403
Grzegorz Zajac	
METHYL ESTERS OF RAPE OIL AS AN ADDITION TO DIESEL FUEL..... :	407
Tadeusz Złoto	
MODELLING THE PRESSURE DISTRIBUTION IN OIL FILM IN THE VARIABLE HEIGHT GAP BETWEEN THE VALVE PLATE AND CYLINDER BLOCK IN THE AXIAL PISTON PUMP	418
Zdzisław Żółkiewicz, Marek Żółkiewicz	
LOST FOAM PROCESS -THE CHANCE FOR INDUSTRY	431