

LIST OF PAPERS

HUSAINI ARDY, SIGIT YOEWONO, ARIF SUGIANTO THE EFFECT OF PWHT ON WELD PROPERTIES OF TITANIUM ALLOY FOR REFURBISHMENT OF AIRCRAFT ENGINE EXHAUST CONE	9
EMILIA BASZANOWSKA, ZBIGNIEW OTREMBA PECTROSCOPIC METHODS IN APPLICATION TO OIL POLLUTION DETECTION IN THE SEA	15
TOMASZ BŁASIŃSKI, ANDRZEJ KAŻMIERCZAK, KONRAD KRAKOWIAN, ALEKSANDER GÓRNIAK DESIGN OF AUTOMOTIVE CONSTRUCTIONS BASED ON INTERIOR AND BODY OUTFIT OF OFFROAD CAR	21
PIOTR BZURA RELIABILITY MODEL OF THE CRANKSHAFT-PISTON ASSEMBLY	29
ADAM CHARCHALIS DIAGNOSTIC AND MEASUREMENT SYSTEM DEDICATED FOR MARINE ENGINES' EXPLOITATORY ATTRIBUTES EVALUATION	35
BOGUSŁAW CZECHOWICZ, GRZEGORZ KOWALECZKO, MIROŚLAW NOWAKOWSKI MODELLING OF FLIGHT DYNAMICS OF AN AIRPLANE ENCOUNTERING TRAILING VORTICES GENERATED BY ANOTHER AIRPLANE	41
LESZEK CZECHOWSKI, TOMASZ KUBIAK ANALYSIS OF THIN-WALLED GIRDERS SUBJECTED TO A PULSE TORSIONAL TORQUE	51
HUBER DĘBSKI, JAROSŁAW LATALSKI NUMERICAL ANALYSIS OF COMPOSITE STRUCTURES WITH EMBEDDED PIEZOELECTRIC ACTIVE ELEMENTS	63
HUBERT DĘBSKI, MONIKA OSTAPIUK NUMERICAL FEM ANALYSIS FOR THE PART OF COMPOSITE HELICOPTER ROTOR BLADE	71
PIOTR DROGOSZ DIFFERENT TYPES OF POWER TRANSFORMING MACHINES WITH ROTATING PISTONS	79
KRZYSZTOF DUDZIK, ADAM CHARCHALIS EIS RESEARCH OF AW-7020 ALLOY JOINTS WELDED BY MIG	83
PIOTR DUDZIŃSKI, ALEKSANDER SKURJAT DIRECTIONAL DYNAMICS PROBLEMS OF AN ARTICULATED FRAME STEER WHEELED VEHICLES	89

WŁODZIMIERZ FREDA, ZBIGNIEW OTREMB OIL RESIDUALS IN THE SEA: COMPARISON ITS OPTICAL FEATURES WITH OPTICAL PROPERTIES OF THE SEAWATER	99
ADRIAN GILL, ADAM KADZIŃSKI THE CONCEPT OF IDENTIFICATION OF LAYERS OF SAFETY SYSTEM MODELS THROUGH CLASSIFICATION OF RISK REDUCTION MEASURES	105
JAN GODZIMIRSKI, AGATA PIETRAS NUMERICAL ANALYSIS FIBER METAL LAMINATES AS ADHESIVELY BONDED STRUCTURES	117
JAN GODZIMIRSKI, MAREK ROŚKOWICZ, SŁAWOMIR TKACZUK THE CHOICE OF THEORY FOR ADHESIVE LAYER EFFORT	129
WAWRZYNIEC GOŁĘBIEWSKI THE EFFECT OF PRESSURE IN A COMMON RAIL ACCUMULATOR ON ENGINE OPERATING PARAMETERS	139
ZYGMUNT GÓRSKI, MARIUSZ GIERNALCZYK METHOD FOR DETERMINATION OF ENERGY DEMAND FOR MAIN PROPULSION AND ONBOARD ELECTRIC POWER FOR MODERN HARBOUR TUG BOATS BY MEANS OF STATISTICS	147
KATARZYNA GROCHOWSKA A RESEARCH DEVICE TO CONTROL IGNITION AND INJECTION PARAMETERS FOR A SPARK-IGNITION ENGINE	155
PIOTR KALINA, ANDRZEJ IRZYCKI, KRZYSZTOF SNOPIEKIEWICZ PROCEDURES & TREATMENTS LEADING TO REDUCTION OF TOXIC COMPONENTS EMISSION IN DIESEL ENGINE'S EXHAUST GAS	163
JAKUB KORTA, ADAM MARTOWICZ, ALBERTO GALLINA, TADEUSZ UHL APPLICATION OF MULTIBODY SIMULATION FOR SEMITRAILER OPTIMIZATION	171
KRZYSZTOF KOSIUCZENKO, WOJCIECH NAPADŁEK NUMERICAL SIMULATION THE FINITE ELEMENT METHOD (FEM) OF STRESS AND STRAIN FOR THE CHOSEN COATINGS TBCs ON TURBINE BLADES LOADED WITH LASER IMPULSES	183
KRZYSZTOF KOSIUCZENKO, WOJCIECH NAPADŁEK THE NUMERICAL-EXPERIMENTAL ANALYSIS OF ABLATIVE LASER CLEANING NICKEL-BASED SUPERALLOY	187
JERZY KOWALSKI LABORATORY STUDY ON INFLUENCE OF AIR DUCT THROTTLING ON EXHAUST GAS COMPOSITION IN MARINE FOUR-STROKE DIESEL ENGINE	191
MAREK KRASKOWSKI APPLICATION OF THE RANS FLOW MODEL FOR THE ANALYSIS OF THE MOTION OF FLOATING OBJECTS IN WAVES	199
WIESŁAW KRASOŃ, RAFAŁ KOZŁOWSKI, AGNIESZKA DEREWOŃKO, KONRAD GOLCZAK SELECTED ASPECTS OF SIMULATION OF MULTI-MODULE MECHANISMS WITH THE USE OF MULTIBODY METHOD	207

ALEKSANDER KURANOWSKI EFFECT OF VARIABLE INPUT AND OUTPUT ON THE CHARACTERISTICS OF A STEERING SYSTEM WITH EPS (ELECTRIC POWER SYSTEM)	215
GVIDONAS LABECKAS, STASYS SLAVINSKAS, VALENTINA VILUTIENĖ COMBUSTION, PERFORMANCE AND EXHAUST EMISSIONS OF THE DIESEL ENGINE OPERATING ON JET FUEL	227
WOJCIECH LABUDA, ADAM CHARCHALIS THE ANALYSIS OF FINISHING TOOLING INFLUENCE ON CORROSION PROPERTIES RESEARCHED BY EIS	237
MACIEJ LASKOWSKI USING CUSTOMIZED PSEUDOISOCROMATIC PLATES FOR DETECTING CHOSEN FORMS OF DICHRMACY	245
JACEK ŁAZOWSKI, JANUSZ KRASUCKI FLOW ANALYSIS OF HYDRAULIC POPPET CONTROL VALVE BY MEANS OF COMPUTATIONAL FLUID DYNAMICS	251
ADAM MARCINIEC, GRZEGORZ BUDZIK, TOMASZ DZIUBEK, MIROSLAW GRZELKA QUALITY CONTROL AND INSPECTION OF BEVEL GEARS OF THE AIRCRAFT GEARBOX UTILIZING THE ATOS 3D SCANNER	261
ŁUKASZ MAZURKIEWICZ, JERZY MAŁACHOWSKI ANALYSIS OF SELECTED STRUCTURAL COMPONENTS SUBJECTED TO BLAST WAVE	267
JERZY MERKISZ, JACEK PIELECHA THE INFLUENCE OF LOAD VEHICLES IN ROAD TESTS ON THE PARTICLE MATTERS PARAMETERS	273
JUSTYNA MOLENDĄ, ADAM BARYLSKI EMISSIVITY OF THE ONE-PLATE LAPPING MACHINE TOOL	283
BEN MOXEY, ALASDAIR CAIRNS, LIONEL GANIPPA & HUA ZHAO, MICHAEL BASSETT A STUDY OF COMBINING GASOLINE ENGINE DOWNSIZING AND CONTROLLED AUTO-IGNITION COMBUSTION	283
GABRIEL NOWACKI PROBLEMS OF COOPERATIVE INTELLIGENT TRANSPORT SYSTEMS (ITS) IMPLEMENTATION IN EUROPEAN UNION	301
ZBIGNIEW OTREMBA NEW TECHNICAL USES OF MARINE SPACE OF THE BALTIC SEA	311
STEFAN POSTRZEDNIK, GRZEGORZ PRZYBYŁA, ZBIGNIEW ŹMUDKA ANALYSIS OF THE IGNITION CONTROL IN THE HCCI SYSTEM USING DOSE OF MONOATOMIC INERT GAS	319
KONRAD PRAJWOWSKI IMPACT OF AN EXTERNAL, SO CALLED BOX, MODULE ON POWER AND TORQUE OF THE FIAT 1.3 JTD MOTOR	327
PAWEŁ PREŚ, WACŁAW SKOCZYŃSKI MODELLED PHENOMENON OF BURR FORMATION DURING MACHINING	333

ANNA RUDAWSKA, HUBERT DĘBSKI ADHESIVE BONDED HOT DIP ZINC COATED SHEET AND TITANIUM SHEET JOINT STRENGTH —NUMERICAL ANALYSIS	339
ARKADIUSZ RYCHLIK, PIOTR SZCZYGLAK, PRZEMYSŁAW DROŻYNER, JERZY NAPIÓRKOWSKI THE USE OF A NEODYMIUM FATIGUE TESTING MACHINE FOR FATIGUE STRENGTH EVALUATIONS	347
WOJCIECH SERDECKI, PIOTR KRZYMIEŃ HOW THE WEAR OF CYLINDER LINER AFFECTS THE COOPERATION OF PISTON-CYLINDER ASSEMBLY OF IC ENGINE	357
LECH SITNIK, ARTUR MALINOWSKI, ANNA MATUSZEWSKA, JACEK BIEDRZYCKI BMD BIO-FUEL FOR DIESEL ENGINES	365
PAWEŁ STANIAK, WOJCIECH MOĆKO, ANDRZEJ WOJCIECHOWSKI APPLICATION OF GREEN ENERGY FOR EV BATTERY CHARGING STATION	371
ROBERT STAROSTA EFFECT OF BURNISHING ON SURFACE TEXTURE OF Ni-Al PLASMA SPRAYED COATINGS	377
ADAM STELMASZEWSKI, ZBIGNIEW OTREMBA SHIP AS A SOURCE OF THE SEA POLLUTION WITH OIL	385
MAREK STEMBALSKI, WACŁAW SKOCZYŃSKI, ANDRZEJ ROSZKOWSKI NUMERICAL MODEL OF FRICIONAL DAMPER FOR GLAS-MAKING ROBOT LANCE	391
PIOTR SZURGOTT, TADEUSZ NIEZGODA CI ENGINE AS A CASE STUDY OF THERMOMECHANICAL FE ANALYSIS OF THE PISTON – PISTON RINGS – CYLINDER SYSTEM	399
PIOTR SZURGOTT, PAWEŁ GOTOWICKI, TADEUSZ NIEZGODA NUMERICAL ANALYSIS OF A SHAPED RAIL PAD UNDER SELECTED STATIC LOAD	407
ELŻBIETA SZYMCZYK, JERZY JACHIMOWICZ, ŁUKASZ PRASEK, ANNA PIĄTKOWSKA FRICTION COEFFICIENT DETERMINATION BASED ON THE RESULTS OF BALL-ON-FLAT TEST	415
ELŻBIETA SZYMCZYK, JERZY JACHIMOWICZ, KRZYSZTOF PUCHAŁA SOME ASPECTS OF DYNAMIC RIVETING SIMULATIONS	423
WALDEMAR ŚWIDERSKI, MAREK SZUDROWICZ NON-STANDARD METHODS OF DATA PROCESSING IN THERMOGRAPHIC NON-DESTRUCTIVE TESTING OF LIGHT BALLISTIC PROTECTIONS	431
SZYMON TENGLER, ANDRZEJ HARLECKI WAYS OF UNEVEN ROAD SURFACE MODELING USED IN THE VEHICLE DYNAMICS ANALYSIS	441
GRZEGORZ TORA SIMULATIONS OF THE ACTIVE CAB SUSPENSION	453

WOJCIECH TUTAK, ARKADIUSZ JAMROZIK, MICHAŁ GRUCA CFD MODELING OF THERMAL CYCLE OF SUPERCHARGED COMPRESSION IGNITION ENGINE	465
BOGDAN WARDA, KRZYSZTOF SICZEK DECREASING OF MOVABLE MASSES IN VALVE TIMING USING ROLLER TAPPET	473
KRZYSZTOF WIERZCHOLSKI THE LIPSCHITZ PICARD SUCCESSIVE STEP METHOD IN HYDRODYNAMIC LUBRICATION PROBLEM	483
ZBIGNIEW ŻMUDKA, STEFAN POSTRZEDNIK, GRZEGORZ PRZYBYŁA LATE INTAKE VALVE CLOSING AS A WAY OF THE THROTTLELESS CONTROL OF SI ENGINE LOAD	491