ISSN: 1231-4005 e-ISSN: 2354-0133

LIST OF PAPERS

Tadeusz Kałdoński	
EDUCATIONAL AND SCIENTIFIC ACTIVITY OF INSTITUTE OF MOTOR VEHICLES AND TRANSPORTATION FACULTY OF MECHANICAL ENGINEERING MILITARY UNIVERSITY OF TECHNOLOGY	9
Wiesław Barnat, Tadeusz Niezgoda, Stanisław Ochelski	
COMPOSITE-POLYMER MATERIALS FOR ENERGY-ABSORBING STRUCTURES	21
Krzysztof Bieńczak, Wiesław Zwierzycki	
ELABORATION OF CONCEPT OF ROAD VEHICLES TRANSPORTING DANGEROUS GOODS IN CONTROLLED TEMPERATURES	35
Zdzisław Bogdanowicz, Krzysztof Grzelak	
INVESTIGATING THE EFFECTS OF LASER STELLITE PAD WELDING ON THE SERVICE PROPERTIES OF VALVE STEELS	41
Wacław Borkowski, Piotr Rybak	
TEST OF IMPACT RESISTANCE OF TRACKED COMBAT VEHICLE	51
Wacław Borkowski, Piotr Rybak, Bogusław Michałowski, Józef Wysocki, Zdzisław Hryciów	
TRACTION PROPERTIES OF THE TRACKED COMBAT VEHICLE AT LOWERED POWER OF THE DRIVING ENGINE	59
KAROL CHODKIEWICZ	
PT-91M. WHAT POLISH ARMY THINKS ABORT THIS?	69
EDWARD CYPKO	
ANALYSIS OF PIN'S SURFACE LAYER STRUCTURE INFLUENCE ON INTERACTION WITH SLIDING COUPLE ELEMENTS USING GRP	77
Robert Czabanowski	
ANALYSIS OF THE LOADS ON POWER TRANSMISSION SYSTEM OF UNDERCARRIAGES WITH ELASTOMER TRACKS	85
Piotr Dudziński, Aleksander Skurjat	
INNOVATIVE METHODS OF MOTION STABILITY IMPROVEMENT IN ARTICULATED RIGID FRAMES VEHICLES ON WHEELED CHASSIS	93
TADEUSZ DZIUBAK, TADEUSZ WYSOCKI	
TECHNICAL EVALUATION OF APC CHASSIS	101
EVGENIY FEDYANOV, VIKTOR SLAVUCKIY, ZAHAR KANYGIN, VADIM SLAVUCKIY	
FUEL FEED TO DIESEL AT A START REGIME	111

Jan Figurski, Ryszard Kostrow, Eugeniusz Milewski	
FEASIBILITY OF ELABORATION OF MLRS – P ROCKET SYSTEM WITHIN POLISH MILITARY INDUSTRY	117
Bogdan Fijałkowski	
A MATHEMATICAL MODEL OF THE SPROCKET-TENSIONER AND/OR ROAD-WHEEL-HUB MOTOR/GENERATOR FOR THE INTELLIGENT MAIN BATTLE TANK	125
Krzysztof Gocman, Tadeusz Kałdonski	
APPLICATION OF ARTIFICIAL NEURAL NETWORKS IN TRIBOLOGY – PREDICTION AND CLASSIFICATION MODELS	137
Zahid Godzhaev, Victor Shekhovtsov, Nickolay Sokolov-Dobrev, Vladimir Shevtchuk, Mikhail Lyashenko	
THE INFLUENCE OF JET LINKS' PARAMETERS ON THE STRESS LOADING OF TRACTOR'S POWER TRAIN SITES	145
WITOLD GRZEGOŻEK	
ECOLOGICAL CITY CAR, CONCEPTS, DESIGN, AND REALIZATION	157
WITOLD GRZEGOŻEK, JAROSŁAW SZCZYGIEŁ, SYLWIA KRÓL	
AN ATTEMPT OF AN EMPLOYMENT OF A CONTINUOUS WAVELET TRANSFORM FOR EVALUATION OF TEMPORARY COMFORT DISTURBANCES	165
Marek Guzek, Zbigniew Lozia, Piotr Zdanowicz, Rafał S. Jurecki, Tomasz L. Stańczyk	
RESEARCH ON BEHAVIOUR OF DRIVERS IN ACCIDENT SITUATION CONDUCTED IN DRIVING SIMULATOR	173
Marek Guzek	
SIMULATION METHOD OF CAR MOTION RECONSTRUCTION BASED ON ADR/EDR DEVICE RECORDS	185
AVI HADAYO, SAM SCHLOSBERG	
THE USE OF LIFE SUPPORT SYSTEM (LSS) WITHIN MODERN ARMOURED VEHICLE	199
VICTOR IVANTSOV, ALEXANDER IVANTSOV, SERGEY IVANTSOV	
SPECIAL FEATURES OF DYNAMIC DESIGN OF A TRACTOR TRACK	203
Antoni Jankowski	
STUDY OF THE INFLUENCE OF DIFFERENT FACTORS ON COMBUSTION PROCESSES (PART ONE)	209
Ryszard Jasiński	
DETERMINATION OF ABILITY OF MACHINES WITH HYDRAULIC DRIVE DURING START-UP IN LOW AMBIENT TEMPERATURES	217

Marek Jaśkiewicz, Tomasz Stańczyk	
THE IDENTIFICATION OF DAMPING AND STIFFNESS PARAMETERS OF A DRIVER MODEL ON THE BASIS OF CRASH TESTS	229
Tomasz J. Kałdoński, Tadeusz Kałdoński, Czesław Pakowski	
THE ENERGETIC – SUPERFICIAL AND LUBRICITY PROPERTIES OF PETROLEUM PRODUCTS AND IONIC LIQUIDS	239
Mirosław Karczewski, Michał Wilk	
INVESTIGATION OF DIESEL ENGINE WITH THE SUPPLY SYSTEM TYPE COMMON RAIL SUPPLIED FUEL F-34 AND BIOFUEL	245
Kazimierz Koliński	
EXAMINATIONS OF THE INFLUENCE OF HEATING UP THE CATALYTIC REACTOR ON THE TOXIC FUME COMPONENT EMISSION DURING A COLD START-UP OF THE SELF-IGNITION ENGINE	255
Włodzimierz Kończewicz, Hanna Smoleńska	
BEHAVIOUR OF THE EXHAUST VALVE CLADALING FACE UNDER THE SERVICE CONDITIONS	265
Andrzej Kosiara	
THE IMPACT OF SELECTED STRUCTURAL PARAMETERS IN UNSPRUNG INDUSTRIAL VEHICLES ON THEIR LONGITUDINAL OSCILLATIONS	273
STANISŁAW KOWALCZYK	
THE PHYSICAL MODEL OF CHANGES SETTING IN MULTILAYER BEARINGS	281
Artur Król, Boleslaw Giemza, Tadeusz Kałdoński	
THE RESEARCH OF OIL PROPERTIES AFTER DURABILITY TESTS OF POROUS BEARINGS	289
Anatoliy Kuzmin, Vladimir Shevchuk	
TECHNIQUE OF DESIGNING OF RELEASABLE THREADED CONNECTIONS OF AUTOTRACTOR TECHNICS	297
WITOLD LUTY	
AN ANALYSIS OF TIRE RELAXATION PROCESS DURING DYNAMIC CHANGES OF CORNERING AGLE	307
Mikhail Lyashenko, Elena Cherkashina, Victor Buryakov, Ilia Lutin	
RESEARCH OF INFLUENCE OF CHANGE OF TEMPERATURE MODE ON ELASTIC-DISSIPATIVE PROPERTIES OF SUSPENSIONS	317
SŁAWOMIR ŁUKJANOW, BOGUSŁAW PIJANOWSKI, MICHAŁ KOŁODZIEJCZAK	
PROJECT OF THE EVALUATION AND CLASSIFICATION SYSTEM OF VEHICLES AND AUTOMOBILE DEVICES IN ASPECT OF ELECTROMAGNETIC COMPATIBILITY	325

Krzysztof Markiewicz	
MODALITY OF COMBAT VEHICLES DESIGN USING MULTI-FUNCTION COMBAT PLATFORM AS AN EXAMPLE	335
Arkadiusz Mężyk, Tomasz Czapla, Wojciech Klein	
HYBRID DRIVE APPLICATION FOR HIGH-SPEED TRACKED VEHICLE	341
JAN MISIAK, SŁAWOMIR STACHURA	
ANALYSIS THE DYNAMIC STABILITY OF PLATE AND/OR ROAD-WHEEL-HUB MOTOR/GENERATOR	351
Wojciech Napadłek	
ABLATIVE LASER CLEANING OF MATERIALS	357
Paulina Nogowczyk, Dariusz Więckowski	
EVALUATION OF THE CORRECTNESS OF PERFORMANCE OF TYPICAL VEHICLE DRIVE MANOEUVRES vs. STEERING EFFORT	367
Władysław Papacz	
BASIC DYNAMIC PARAMETERS OF COMPOSITE LEAF SPRINGS	379
Krzysztof M. Papliński	
MATHEMATICAL MODEL OF THE MAIN BATTLE TANK WITCH STABILIZED TURRET AND GUN	387
Dariusz Pasieka	
MS20 VEHICLE BRIDGE (BRIDGE ON VEHICLE CHASSIS)	397
ARKADIY POBEDIN, OLEG KOSOV, ALEXANDER DOLOTOV, FEDOR DOMOLAZOV	
STATISTICAL ANALYSIS OF GAZ-3110 VEHICLES NOISE	407
ALEX PODZOROV, ALEXANDER GOROBTSOV, MIKHAIL LYASHENKO	
THE OPTIMAL CONTROL OF THE MULTIDIMENSIONAL SYSTEM AT STOCHASTIC EXCITATION	411
KAZIMIERZ ROMANISZYN	
DRIVING STABILITY OF A VEHICLE WITH HIGH CENTER OF GRAVITY DURING ROAD TESTS ON A CIRCULAR PATH AND SINGLE LANE-CHANGE	419
Przemysław Simiński, Maciej Zając	
EXPERIMENTAL VERIFICATION OF THE MODEL ASSIGNED FOR WHEELED ARMOURED FIGHTING VEHICLE TESTING	429
Przemysław Simiński, Maciej Zając	
MODEL RESEARCH ON WHEELED ARMOURED FIGHTING VEHICLE ORIENTED TO TRAFFIC SAFETY IMPROVEMENT	437
Barbara Sieminska-Jankowska	

PRELIMINARY RESEARCH NOVEL COMPOSITE MATERIALS WITH SMALL HYSTERESIS AND HIGH FUNCTIONAL PARAMETERS FOR COMBUSTION ENGINES PISTONS	447
VICTOR SLAVUTSKIY, EVGENIY SALYKIN, VADIM SLAVUTSKIY, ZAKHAR KANYGIN	
THE STUDY OF NON TRADITIONAL DOSING METHOD OF THE CYCLE FUEL FEED IN DIESEL	453
VICTOR SLAVUTSKIY, EVGENIY SALYKIN, YURIY BELOZUBOV, ZAKHAR KANYGIN	
STUDY OF DIESEL FUEL FEED SYSTEM WITH DIVIDED PROCESSES OF FORCING AND DOSING OUT	459
Mariusz Smoczyński, Tomasz Szydłowski	
MODEL OF HYDRAULIC SINGLE-ACTING DRIVE FOR VALVES OF INTERNAL COMBUSTION ENGINE	465
Tomasz Stańczyk, Rafał Jurecki, Michał Karendał, Wiesław Pieniążek	
THE RESEARCH ON DRIVERS' BEHAVIOUR ON A CAR TRACK IN A SIMULATED ACCIDENT SITUATION	473
MACIEJ SYDOR, MAREK ZABŁOCKI	
SPECIFICS OF THE UTILISATION OF A MOTORCAR BY A PERSON WITH A LOCOMOTIVE DISABILITY	483
Tomasz Szydłowski, Mariusz Smoczyński	
MODEL OF HYDRAULIC DOUBLE-ACTING DRIVE FOR VALVES OF INTERNAL COMBUSTION ENGINE	487
JÓZEF TUTAJ	
A MATHEMATICAL MODEL OF THE GENERATOR / STARTER FOR AUTOMOTIVE VEHICLES	495
VALERIY VARFOLOMEYEV, ARKADIY POBEDIN	
AGENCY SUSPENSIONS OF A BACK IDLER ON ANGULAR OSCILLATIONS OF A TRACTOR WITH THE TRIANGULAR CATERPILLAR CONTOUR	507
ALEXANDER VASILYEV, JULIA BAKHRACHEVA	
THE METHOD FOR RELIABILITY ESTIMATION OF THE MACHINE ELEMENTS UNDER LOW TEMPERATURE CONDITIONS	513
ALEXANDER VASILYEV, JULIA BAKHRACHEVA	
IMPROVEMENT OF THE INTERNAL COMBUSTION ENGINE CAM-TAPPET CHARACTERISTICS USING NUMERICAL STEP-BY-STEP CAM DESIGN METHOD	517
Marek Węglowski, Adam Pietras, Aleksandra Węglowska	
EFFECT OF WELDING PARAMETERS ON MECHANICAL AND MICROSTRUCTURAL PROPERTIES OF AL 2024 JOINTS PRODUCED BY FRICTION STIR WELDING	523

Łukasz Wojciechowski, Stanisław Nosal	
THE PREPARATION OF SURFACE LAYER OF NON-ALLOYED STEEL TO COOPERATION WITH LUBRICATING MEDIUM	533
JÓZEF WYSOCKI, WIESLAW KRASON	
A NUMERICAL ANALYSIS OF A DOUBLE MULTI-LEAF SPRING MODEL	541
TADEUSZ WYSOCKI, DARIUSZ WOŹNIAK	
ASPECTS OF APC ROSOMAK EXPLOITATION SYSTEM EVALUATION	551
MAREK ZABŁOCKI, MACIEJ SYDOR	
ERGONOMY OF THE INSIDE OF A MOTORCAR CABIN USED BY A PERSON WITH LOCOMOTIVE DISABILITY – A CASE STUDY ANTHROPOMETRIC ANALYSIS	559
MAREK ZABŁOCKI, MACIEJ SYDOR	
ERGONOMY OF THE INSIDE OF A MOTORCAR CABIN USED BY A PERSON WITH LOCOMOTIVE DISABILITY— A CASE STUDY INVESTIGATIONS OF THE SUBJECTIVE DISCOMFORT SENSATION	567
Dariusz Żardecki	
SENSITIVITY ANALYSIS OF STEERING SYSTEM MODEL	571
JERZY WALENTYNOWICZ	
INFLUENCE OF THE COOLANT TEMPERATURE ON EMISSION OF TOXIC COMPOUND AND ENGINE WORK PARAMETERS	583
WITOLD WISNIOWSKI	
UNTYPICAL CASES AND INCORRECT RESULTS OF VIBRATION TESTS	591