

# De veiligheid van motorrijders

*Een keuze uit de recente, internationale literatuur*

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## Ten geleide

Het gebruik van de motorfiets neemt in Nederland toe en daarmee ook het aantal ongevallen en slachtoffers. Om die reden is uitgezocht wat er aan literatuur beschikbaar is over de veiligheid van motorrijders. Daarvan is gebruik gemaakt van het IRRD-bestand dat bij de SWOV aanwezig is. Als eerste stap zijn alle titels uitgedraaid met de trefwoorden motorfiets en veiligheid van de laatste vijf jaar. Dit resulteerde in ongeveer 250 titels. De tweede stap bestond uit een keuze door het weglaten van titels die wezen op publikaties over standaard ongevallenstatistieken, over bromfietsen en over helmen (als overbekend onderwerp). Van de overblijvende titels zijn de abstracts uitgedraaid. Als derde stap zijn deze ongeveer 100 abstracts ingedeeld in zes rubrieken. Tegelijk zijn die abstracts weggelaten die weinig of geen nieuwe kennis of inzichten leken te bieden. De resterende (ongeveer tachtig) abstracts geven een goed overzicht van de recente, internationale literatuur over de veiligheid van motorrijders.



## INHOUD

1. ALGEMEEN
2. BESTURDER
3. OPLEIDING
4. VOERTUIG
5. BESCHERMING
6. ZICHTBAARHEID

1. Algemeen

1.1 Quest Accession Number : 93P00254

855229 I.R.R.D. Publication

MOTORCYCLE SAFETY, ENVIRONMENTAL EFFECTS, AND PERFORMANCE STUDIES.  
JANUARY 1980-OCTOBER 1991 (CITATIONS FROM THE NTIS DATABASE)

Source no: 9205TB204E

Author:

Publisher: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL  
ROAD 22161 SPRINGFIELD VIRGINIA USA

Type of Publication: REPORT, Date: 1991-10-01, Pagination: 44P,  
Reference:

Availability of Document: Centre: NATIONAL TECHNICAL INFORMATION  
SERVICE, Code Assigned: PB91-801258/WTS

Language in: ENGLISH

THE BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING A VARIETY OF  
ASPECTS REGARDING MOTORCYCLE USE. TOPICS INCLUDE SAFETY EQUIPMENT  
AND EDUCATION, VEHICLE EMISSIONS, VISIBILITY FACTORS, AND VEHICLE  
DESIGN. CONSIDERABLE ATTENTION IS GIVEN TO ACCIDENT PREVENTION  
STRATEGIES, AND THE IMPACT OF CRASH HELMET USE. MOTORCYCLE OPERATOR  
TRAINING PROGRAMS ARE DISCUSSED. VEHICLES DESIGNED FOR OFF-ROAD USE  
AND HIGHWAY DRIVING ARE CONSIDERED. SUPERCEDES PB90-860610

Subject Classification: / ACCIDENT STATISTICS, 81 / VEHICLE  
DESIGN AND SAFETY, 91 /

Controlled Terms: / VISIBILITY, 6783 / VEHICLE, 1255 / DESIGN  
(OVERALL DESIGN), 9011 / SAFETY COEFFICIENT, 5504 / SAFETY, 1665 /  
EDUCATION, 1682 / MOTORCYCLE, 1221 / MOTORCYCLIST, 1752 / CRASH  
HELMET, 1687 / EXHAUST FUMES, 1393 / ENVIRONMENT, 9018 / ACCIDENT  
PREVENTION, 1661 /

1. Allgemein

1.2 Quest Accession Number : 92P08208

328593 I.R.R.D. Publication

INTERNATIONALE MOTORRADKONFERENZ. "SICHERHEIT - UMWELT - ZUKUNFT

Source no: 9207BA103D

Author:

KOCH, H

Publication: POLIZEI VERKEHR + TECHNIK LUEBECK DEUTSCHLAND BR,  
ISSN: 0722-5962

Type of Publication: PERIODIKUM, Date: 1992, Volume: 37, Number: 2  
, Pagination: 48-9, Reference: 0

Availability of Document:., Code for Centre: EAST, 1st Form: ORIG,  
Z EINSICHT

Language in: DEUTSCH

Schwerpunkt der Internationalen Motorradkonferenz 1990 in Orlando, Florida, war der Themenkreis Sicherheit. Positiv zu vermerken ist, dass es einen Rueckgang toedlicher Motorradunfaelle seit rund 10 Jahren gibt. Dies duerfte vor allem auf eine Verbesserung der aktiven Sicherheit der Motorraeder zurueckzufuehren sein, darueber hinaus aber auch auf Massnahmen der passiven Sicherheit und das Fahrverhalten der Motorradfahrer. Auf der Konferenz wurden weitere Moeglichkeiten zur Verbesserung der Sicherheitsbilanz aufgezeigt. Sie betreffen unter anderem die Bereiche Unfallforschung, Motorradfahrerschutzhelme, Bremsen, Schutzkleidung und das Risikoverhalten der Fahrer. Ein weiterer Aspekt der Tagung waren Umweltgesichtspunkte beim Motorrad, einerseits Abgasemissionen, andererseits Laermemissionen. Abschliessend befasste man sich mit dem Stellenwert des motorisierten Zweirades im Verkehr der Zukunft

Subject Classification: / FAHRZEUGKONSTRUKTION, 91 /  
UMWELTBELAESTIGUNG, 93 /

Controlled Terms: / MOTORRAD, 1221 / MOTORRADFAHRER, 1752 /  
SICHERHEIT, 1665 / UNFALL, 1643 / ENTWICKLUNG, 9013 / SCHUTZHELM,  
1687 / RUECKSICHTSLOSIGKEIT, 2259 / SCHALL, 6748 / ABGASE, 1393 /  
KLEIDUNG, 1688 /

1. Algemeen

1.3 Quest Accession Number : 91P11748

843429 I.R.R.D. Publication

MOTORCYCLE CASUALTIES - A TIME BOMB? HOW LONG IS THE FUSE

Source no: 9109TR595E

Author:

WATSON,P; TRRL, UK

Publication: JOURNAL OF TRAFFIC MEDICINE, PO BOX 1644 S-751 46  
UPPSALA SWEDEN, ISSN: 0345-5564

Type of Publication: SERIAL, Date: 1990, Volume: 18, Number: 3,  
Pagination: 95-9, Reference: 6

Availability of Document:., Code for Centre: TRRL, 1st Form: ORIG,  
REF ONLY

Centre: BLDSC

Language in: ENGLISH

Motorcyclists are far more likely to be injured in an accident than car drivers. Increased usage of motorcycles brings a disproportionate increase in total road casualties. This could be a problem for the developing countries as their transport increases. Car safety has improved due to legislation requirements, but motorcycles have received little attention. International agreements could reduce the introduction of new safety requirements and publication of research results can be hampered by product liability laws. Vehicle engineering can improve motorcycle safety but progress on adoption of safety features is uncertain. (A)

Subject Classification: / VEHICLE DESIGN AND SAFETY, 91 /  
ACCIDENT STUDIES, 80 /

Controlled Terms: / MOTORCYCLIST, 1752 / ACCIDENT RATE, 1612 /  
SAFETY, 1665 / MOTORCYCLE, 1221 / DESIGN (OVERALL DESIGN), 9011 /



1. Algemeen

1.4 Quest Accession Number : 90P13036

125022 I.R.R.D. Publication

COMMENT LUTTER CONTRE LA GLISSANCE DES PASSAGES PIETONS

Source no: 9011SE013F

Author:

BRY,M; LCPC

Publication: NOTE D'INFORMATION CIRCULATION - SECURITE

Publisher: SERVICE D'ETUDES TECHNIQUES DES ROUTES ET AUTOROUTES,  
AV ARISTIDE BRIAND 46 F-92223 BAGNEUX FRANCE

Type of Publication: SERIE, Date: 1988-03, Number: 56, Pagination:  
4P, Reference: 0

Availability of Document:, Code for Centre: SETRA, Code Assigned:  
5348-56, 1st Form: ORIG, SUR PLACE

Language in: FRANCAIS

Les passages piétons, matérialisés par des bandes blanches de 50 cm de largeur, sont souvent accusés d'être glissants par les associations d'usagers de 2 roues. Depuis dix ans, plusieurs campagnes de mesures ont été réalisées dans différentes villes pour évaluer la réalité du problème. Des études ont été entreprises pour mieux appréhender les besoins des deux roues et les solutions à adopter afin de supprimer les marquages jugés glissants. Bien que certaines villes, comme Reims, se soient données les moyens de résoudre le problème, de trop nombreux marquages restent glissants. L'administration centrale a entrepris plusieurs actions pour tenter de faire évoluer cette situation. Toutefois les mesures prises ne peuvent être efficaces sans une mobilisation des gens du terrain, décideurs et chargés de mise en œuvre. Cette note a pour objectif de les sensibiliser au problème. Les moyens techniques sont disponibles, il reste à changer quelques habitudes. La signalisation horizontale ne se résume pas en effet au simple maintien d'une surface blanche

Subject Classification: / LES ACCIDENTS ET LA ROUTE, 82 /  
MATERIAUX DIVERS, 35 /

Controlled Terms: / PASSAGE PIETONS, 1659 / GLISSANCE, 3031 /  
SECURITE, 1665 / PREVENTION, 1670 / DEUX ROUES A MOTEUR, 1221 /  
MATERIAU, 4555 / AMELIORATION, 9108 / MARQUAGE, 0562 / TRAITEMENT  
ANTIDERAPANT, 3040 /

1. Algemeen

1.5 Quest Accession Number : 90P11209

124647 I.R.R.D. Publication

LA SECURITE DES DEUX-ROUES ET L'AMENAGEMENT DES INFRASTRUCTURES EN RASE CAMPAGNE

Source no: 9008SE019F

Author:

DOMINIQUE, J

Publisher: SERVICE D'ETUDES TECHNIQUES DES ROUTES ET AUTOROUTES, AVENUE ARISTIDE BRIAND 46 F-92220 BAGNEUX FRANCE

Type of Publication: RAPPORT, Date: 1990-06, Pagination: 116+72P, Reference:

Availability of Document:., Code for Centre: SETRA, Code Assigned: 6282, 1st Form: ORIG, SUR PLACE

Language in: FRANCAIS

Cette etude traite des accidents des deux-roues en rase campagne, qui, bien que moins nombreux qu'en milieu urbain, sont plus graves et plus souvent mortels. Les velos sont principalement sujets a des chocs arrieres en ligne droite; les cyclomoteurs a des chocs lateraux en intersection et les motocyclettes a des chocs frontaux en courbe et a des sorties de route en courbe. Apres avoir expose la situation du probleme des accidents impliquant des deux-roues, l'auteur fait une synthese des etudes deja realisees, une analyse des accidents des deux-roues en rase campagne, une analyse des mecanismes d'accidents, et termine son rapport par des propositions pour ameliorer la securite des deux-roues

Subject Classification: / LES ACCIDENTS ET LA ROUTE, 82 / STATISTIQUES D'ACCIDENTS, 81 /

Controlled Terms: / SECURITE, 1665 / DEUX ROUES A MOTEUR, 1221 / BICYCLETTE, 1211 / RASE CAMPAGNE, 0328 / ACCIDENT, 1643 / GRAVITE (ACCID, BLESSURE), 1623 / STATISTIQUE, 6555 / TYPE DE ROUTE, 2755 / AMENAGEMENT, 2885 / CARREFOUR, 0455 / ACCOTEMENT, 2916 / VISIBILITE, 6783 / COURBE (ROUTE), 2872 / COLLISION ARRIERE, 1620 / COLLISION FRONTALE, 1640 / COLLISION LATERALE, 1630 /

1. Allgemein

1.6 Quest Accession Number : 90P04035

326948 I.R.R.D. Publication

TECHNIK, FAHRDYNAMIK UND SICHERHEIT MODERNER MOTORRAEDER

Source no: 9001BA008D

Author:

WEIDELE,A

BREUER,B

Publication: AUTOMOBILTECHNISCHE ZEITSCHRIFT STUTTGART DEUTSCHLAND  
BR, ISSN: 0001-2785

Type of Publication: PERIODIKUM, Date: 1989, Volume: 91, Number: 9  
, Pagination: 494-508, Reference: 35

Availability of Document:., Code for Centre: BAST, 1st Form: ORIG,  
Z EINSICHT

Language in: DEUTSCH

Die technischen Moeglichkeiten zur weiteren Steigerung der Fahrsicherheit bei Motorraedern sind noch nicht ausgeschoept. Anhand einiger ausgewaehlter Beispiele wird der derzeitige Stand der Motorradtechnik beschrieben. Dabei eingegangen wird auf die Komponenten des Fahrwerks, wie Vorder- und Hinterradfuehrung, Reifen und Raeder, Bremsen und den Antriebsstrang sowie auf die Aerodynamik und die Ergonomie heutiger Motorraeder. Ebenfalls an Beispielen verdeutlicht werden aktuelle Massnahmen von Fahrzeug- und Komponentenherstellern zur Erhoehung der aktiven Sicherheit. Zum Schluss werden passive Sicherheitsmassnahmen diskutiert. Dabei wird sowohl auf motorradseitige Massnahmen zur Verbesserung des Kollisionsschutzes, Weiterentwicklungen der Schutzwirkung von Motorradhelmen und Schutzbekleidung wie auch auf strassenbauliche Massnahmen zur Beseitigung beziehungsweise Entschaeerfung von Gefaehrdungspotentialen (Leitplanken, Brueckengelaender, Bordsteinkanten, et cetera) eingegangen

Subject Classification: / FAHRZEUGKONSTRUKTION, 91 /

Controlled Terms: / MOTORRAD, 1221 / FAHRLEISTUNG, 0180 /  
FAHRSTABILITAET, 1646 / SICHERHEIT, 1665 / VERBESSERUNG, 9108 /  
TECHNOLOGIE, 3855 / RAD, 1372 / BREMSE, 1361 / ANTRIEB (TECH), 3873  
/ ERGONOMIE, 2029 / AERODYNAMIK, 5492 / PASSIVES SICHERHEITSSYSTEM,  
1387 / SCHUTZHELM, 1687 /

1. Allgemein

1.7 Quest Accession Number : 89P09481

326649 I.R.R.D. Publication

SICHERHEIT BEI MOTORISIERTEN ZWEIRADFahrZEUGEN

Source no: 8907BA049D

Author:

KATZULA, U

Publication: KRAFTFAHRZEUGTECHNIK BERLIN DDR, ISSN: 0023-4419

Type of Publication: PERIODIKUM, Date: 1988, Volume: 38, Number: 8

, Pagination: 238-40, Reference: 0

Availability of Document:, Code for Centre: BAST, 1st Form: ORIG,

Z EINSICHT

Language in: DEUTSCH

DIE VORGESTELLTEN ERGEBNISSE ZEIGEN DEUTLICH, DASS DIE WICHTIGSTE SICHERHEITSRESERVE BEIM FAHRER SELBST LIEGT, BEI SEINEM WISSEN, SEINEM KOENNEN UND IN SEINER VORAUSSCHAUENDEN, DEFENSIVEN FAHRWEISE. DIE WIRKUNG DER SCHUTZKLEIDUNG KANN NUR IN ANSPRUCH GENOMMEN WERDEN, WENN SIE VOLLSTAENDIG UND BEI JEDER FAHRT GETRAGEN WIRD UND IN GUTEM PFLEGEZUSTAND IST (VISIERE, SCHUTZBRILLEN!). DIE ZWEIRADPRODUZENTEN TRAGEN ZUNEHMEND UND SYSTEMATISCH MIT VERBESSERTEN KONSTRUKTIONEN DAZU BEI, DASS BEI EINEM UNFALL EINE WEITGEHEND VERLETZUNGSFREIE TRENNUNG VON FAHRER UND MASCHINE MOEGLICH IST. ZU DEN NEUESTEN ENTWICKLUNGEN GHOEREN ANTIBLOKIERSYSTEME. DIESE KOENNEN AUCH FUER ERFAHRENE MOTORRADFAHRER GERADE BEI UNGUENSTIGEN FAHRBAHNBEDINGUNGEN BEZIEHUNGSWEISE IN PANIKSITUATIONEN EINE WICHTIGE HILFE SEIN; ALLERDINGS BLEIBEN KURVENBREMSUNGEN PROBLEMATISCH. AUSSERDEM MUSS NOCH STAERKER BEACHTET WERDEN, DASS UNANGEMESSENE FAHRWEISE ODER ZU SPAET EINGELEITETE BREMSMANOEVER AUCH MIT ABS ZU UNFAELLEN FUEHREN KOENNEN. (A\*)

Subject Classification: / FAHRZEUGKONSTRUKTION, 91 / UNFALL UND MENSCH, 83 /

Controlled Terms: / SICHERHEIT, 1665 / MOTORRAD, 1221 / FAHRER, 1772 / VERHALTEN, 9001 / SCHUTZHELM, 1687 / KLEIDUNG, 1688 / BAU, 3655 / UNFALLVERHUETUNG, 1661 / BREMSUNG, 1370 / ENTWICKLUNG, 9013 / TECHNOLOGIE, 3855 /

1. Algemeen

1.8 Quest Accession Number : 90P10636

830212 I.R.R.D. Publication

ACCIDENT DATA ANALYSIS AND ACCIDENT PREVENTION MEASURES -  
ESPECIALLY FOR TWO-WHEELED VEHICLES

Source no: 9007TR083E

Author:

MUKAI,R; MANAGEMENT COORDINATION AGENCY, JAPAN

Publication: ELEVENTH INTERNATIONAL TECHNICAL CONFERENCE ON  
EXPERIMENTAL SAFETY VEHICLES, WASHINGTON DC, MAY 12-15, 1987

Publisher: US DEPARTMENT OF TRANSPORTATION. NATIONAL HIGHWAY  
TRAFFIC SAFETY ADMINISTRATION, 400 7TH STREET SW 20590 WASHINGTON DC  
USA

Type of Publication: BOOK, Date: 1987, Pagination: 237-41,  
Reference: 0

Availability of Document:, Code for Centre: TRRL, Code Assigned:  
SEEB8910639, 1st Form: ORIG, REF ONLY

Language in: ENGLISH

Japan is experiencing increased traffic congestion, and numbers of road accidents in the past five years. Three factors are identified from analyzing accident data: (1) motor vehicle occupant deaths continue to make a large proportion of the number of total deaths; (2) a rapid increase in traffic accidents involving the elderly; and (3) fatalities among moped riders and motorcyclists have dramatically increased. Strong countermeasures are proposed. These are: (a) promotion of seat belt use; (b) systematic traffic safety education for elderly people; and (c) comprehensive traffic safety measures for mopeds and motorcycles. For the covering abstract of the conference see IRRD 830189

Subject Classification: / ACCIDENT STUDIES, 80 / ACCIDENTS AND  
THE HUMAN FACTOR, 83 /

Controlled Terms: / CONFERENCE, 8525 / ACCIDENT PREVENTION, 1661  
/ MOTORCYCLIST, 1752 / OLD PEOPLE, 1746 / FATALITY, 1602 / DRIVER  
TRAINING, 1571 / EDUCATION, 1682 / SAFETY BELT, 1397 / JAPAN, 8053 /

1. Algemeen

1.9 Quest Accession Number : 90P07046

828540 I.R.R.D. Publication

SAFETY ASPECTS OF MOTORIZED TWO-WHEELED VEHICLES IN ISRAEL

Source no: 9004SW023E

Author:

MOUKHWAS,D; TRANSPORTATION RESEARCH INSTITUTE

Publication: PROCEEDINGS INTERNATIONAL CONFERENCE ON NEW WAYS AND MEANS FOR IMPROVED SAFETY, TEL AVIV, ISRAEL, FEBRUARY 20-23, 1989

Publisher: TRANSPORTATION RESEARCH INSTITUTE, TECHNION-ISRAEL INSTITUTE OF TECHNOLOGY, TECHNION CITY 32000 HAIFA ISRAEL

Type of Publication: REPORT, Date: 1989-09, Pagination: 314-29, Reference: 0

Availability of Document:, Code for Centre: SWOV, Code Assigned: PB29673, 1st Form: ORIG, REF ONLY

Language in: ENGLISH

THERE IS STILL LITTLE USE OF THE MOTORIZED TWO-WHEELED VEHICLE (MTWV) IN ISRAEL COMPARED WITH THAT OF THE PRIVATE CAR. WHILE THE NUMBER OF PRIVATE CARS INCREASED BETWEEN 1980 TO 1987 FROM 400,000 TO 700,000, A 72% INCREASE, THE MTWV'S INCREASED IN THE SAME PERIOD FROM 25,000 TO 34,000, A 34% INCREASE ONLY. IN THE LAST YEAR, THEY REPRESENTED ABOUT 4% OF THE TOTAL NUMBER OF MOTORIZED VEHICLES IN THIS COUNTRY. ALTHOUGH MTWV'S ONLY FORM A SMALL PROPORTION OF TOTAL TRAFFIC, THEIR ACCIDENT INVOLVEMENT IS MUCH HIGHER THAN SHOULD BE EXPECTED FROM THEIR NUMBERS. IN FACT, MTWV'S CASUALTIES ARE STILL LOW, BUT IN THE PAST TEN YEARS THEIR ACCIDENT RATES HAVE BEEN INCREASING. HOWEVER THERE IS EVIDENCE THAT ACCIDENT RATES DO VARY ACCORDING TO THE TYPE OF MTWV. THEREFORE THE QUESTION ARISES WHETHER IT WOULD BE BENEFICIAL TO RESTRAIN THE USE OF SOME KINDS OF MTWV'S, WHILE PROMOTING THE USE OF THE SAFER ONES. THIS PAPER PRESENTS BACKGROUND DATA ON THE USE OF THESE VEHICLES AND THEIR ACCIDENT INVOLVEMENT IN ISRAEL DURING THE YEARS 1980-1987. FOR THE COVERING ABSTRACT OF THE CONFERENCE SEE IRRD 828518

Subject Classification: / ACCIDENT STATISTICS, 81 / ACCIDENTS AND THE HUMAN FACTOR, 83 /

Controlled Terms: / CONFERENCE, 8525 / MOTORCYCLIST, 1752 / MOPED, 1221 / ACCIDENT RATE, 1612 / STATISTICS, 6555 / SAFETY, 1665 / DESIGN (OVERALL DESIGN), 9011 / ENGINE CAPACITY, 3870 / AGE, 1757 / SEVERITY (ACCID, INJURY), 1623 / SKILL (ROAD USER), 2205 / ISRAEL, 8050 /

2. Bestuurder

2.1 Quest Accession Number : 92P11829

845372 I.R.R.D. Publication

MAPPING THE SOCIAL PSYCHOLOGICAL DETERMINANTS OF SAFE AND UNSAFE MOTORCYCLE RIDING

Source no: 9112TR325E

Author:

CHESHAM,DJ; UNIV OF KENT, CANTERBURY, UK

RUTTER,DR; UNIV OF KENT, CANTERBURY, UK

QUINE,L; UNIV OF KENT, CANTERBURY, UK

Publication: BEHAVIOURAL RESEARCH IN ROAD SAFETY. PROCEEDINGS OF A SEMINAR HELD AT NOTTINGHAM UNIVERSITY, 26-27 SEPTEMBER 1990

Publisher: TRANSPORT AND ROAD RESEARCH LABORATORY, OLD WOKINGHAM ROAD RG11 6AU CROWTHORNE BERKSHIRE UNITED KINGDOM

Type of Publication: REPORT, Date: 1991, Number: PA 2038/91, Pagination: 148-55, Reference: 8

Availability of Document:, Code for Centre: TRRL, Code Assigned: SEEB9109601, 1st Form: ORIG, REF ONLY

Language in: ENGLISH

given the background statistics, it is important to examine what it is about young male motorcyclists that makes them more susceptible to accident and injury. the present paper attempts to address this problem by concentrating on the psychological variables that mediate between a rider's age and sex and the safeness of his or her riding behaviour. the study is based on a national survey, in which riders' safety-related perceptions, attributions, beliefs, and behaviours were measured at time 1 in may 1989, and their exposure, behaviour and accident involvement were measured at time 2 twelve months later. the main purpose of the study was to discover if psychological variables have any effect on the subsequent accident involvement of motorcyclists and, if so, what the nature of the effect is. there were three objectives: (a) to identify the psychological factors important in determining the safeness of motorcyclists' riding behaviour; (b) to investigate the structure of these factors and how they relate to biographical factors such as the rider's age, sex and level of education; and (c) to identify areas within the structure where intervention will have an optimum effect in encouraging motorcyclists to comply voluntarily with safety guidelines. there are four main conclusions to draw. first, unsafe riding, as measured by law and rule breaking, is largely habitual in nature. however, the habit is underpinned by a complex structure of biographical and psychological determinants. second, the psychological variables measured mediate the relationships between biography and behaviour. third, while simple cost-benefit beliefs measured by the health belief model are effective at explaining the behaviour of young male riders, more detailed behavioural beliefs measured by the theory of reasoned action are needed to explain the behaviour of the population of riders overall (chesham, rutter and quine, 1990). fourth, intervention programmes of training and education, if they are to succeed, must be applied early in the motorcyclist's riding career before riding habits have been fully developed, and they must be designed to provide a proper cognitive underpinning for behaviour by instigating and developing beliefs and integrating them with behaviour. (a) for the covering abstract of this seminar see irrd 845356

Subject Classification: / ACCIDENTS AND THE HUMAN FACTOR, 83 /

Controlled Terms: / CONFERENCE, 8525 / UNITED KINGDOM, 8119 / SAFETY, 1665 / MOTORCYCLIST, 1752 / MAN, 1787 / ACCIDENT PRONENESS, 2279 / PSYCHOLOGY, 2255 / AGE, 1757 / SOCIOLOGY, 2253 / BEHAVIOUR, 9001 / MODIFICATION, 9048 / PERCEPTION, 2229 / MODEL (NOT MATH), 6205 /

## 2. Bestuurder

2.2 Quest Accession Number : 92P11820

845363 I.R.R.D. Publication

THE ACCIDENT LIABILITY OF MOTORCYCLISTS AND CAR DRIVERS

Source no: 9112TR316E

Author:

MAYCOCK,G; TRRL

Publication: BEHAVIOURAL RESEARCH IN ROAD SAFETY. PROCEEDINGS OF A SEMINAR HELD AT NOTTINGHAM UNIVERSITY, 26-27 SEPTEMBER 1990

Publisher: TRANSPORT AND ROAD RESEARCH LABORATORY, OLD WOKINGHAM ROAD RG11 6AU CROWTHORNE BERKSHIRE UNITED KINGDOM

Type of Publication: REPORT, Date: 1991, Number: PA 2038/91, Pagination: 68-85, Reference: 6

Availability of Document:, Code for Centre: TRRL, Code Assigned: SEEB9109601, 1st Form: ORIG, REF ONLY

Language in: ENGLISH

data has been collected from a random sample of motorcycles and their riders and a structured sample of drivers using postal questionnaires, to determine the relationship between the accident liability of these riders/drivers and variables such as age, driving experience, sex, socio-economic group (seg) and annual mileage. generalised linear modelling techniques have been used to develop statistical models which will predict the accident liability - the expected number of accidents per year, corrected in the case of drivers for memory loss - for an individual rider/driver as a function of relevant explanatory variables. the key implications arising from these surveys may be summarised as follows: (i) accident liability is dependent mainly on exposure (total annual mileage), the driver's age and his or her driving experience measured as the number of years since passing the test; (ii) predicted accident frequencies are not directly proportional to annual mileage; (iii) the proportion of driving on different types of road (built-up, rural and motorway) does influence accident liability, but to a lesser extent than age and experience. in the case of motorcyclists, the type of road effect is confounded with bike size such that on open roads, riders of big bikes (engine capacity >500cc) had fewer accidents than those riding smaller bikes. seasonality is also an important factor for motorcyclists as is the proportion of driving in the dark for car drivers; (iv) the form of the age effect means that the proportional change in liability with increasing age is larger for younger riders/drivers than for older riders/drivers. no upturn of accident frequency for older drivers could be detected; (v) the form of the experience effect means that accident involvement falls rapidly after passing the test - i.e. the learning curve is steep in the early years; and (vi) interactions were found between the accident liability-age/experience relation and sex and seg for car drivers, and between the accident liability relation and sex and mileage driven in a car for motorcyclists. the analysis showed that young males have a higher accident liability than young females in cars or on bikes. the effect of car driving on the accident liability of motorcyclists suggests that the road safety skills acquired whilst driving a car were equally effective when taking up bike riding. for the covering abstract of this conference, see irrd 845356

Subject Classification: / ACCIDENTS AND THE HUMAN FACTOR, 83 /  
Controlled Terms: / CONFERENCE, 8525 / UNITED KINGDOM, 8119 /  
SAFETY, 1665 / MOTORCYCLIST, 1752 / ACCIDENT PROMENESS, 2279 / AGE,  
1757 / MAN, 1787 / WOMAN, 1788 / SOCIOLOGY, 2253 / MILEAGE, 6488 /  
EXPERIENCE (HUMAN), 2225 / INTERVIEW, 0107 / MATHEMATICAL MODEL,  
6473 /



2. Bestuurder

2.3 Quest Accession Number : 92P07434

328496 I.R.R.D. Publication

ZUR RISIKOBEREITSCHAFT JUNGER MOTORRADFAHRER

Source no: 9207BA006D

Author:

SCHULZ,U; UNIVERSITAET BIELEFELD (DEU). FAKULTAET FUER PSYCHOLOGIE UND SPORTWISSENSCHAFT, ABTEILUNG FUER PSYCHOLOGIE

KERWIEN,H; UNIVERSITAET BIELEFELD (DEU). FAKULTAET FUER PSYCHOLOGIE UND SPORTWISSENSCHAFT, ABTEILUNG FUER PSYCHOLOGIE

Publication: ZEITSCHRIFT FUER VERKEHRSSICHERHEIT KOELN DEUTSCHLAND BR, ISSN: 0044-3654

Type of Publication: PERIODIKUM, Date: 1991, Volume: 37, Number: 4 , Pagination: 168-71, Reference: 19

Availability of Document:, Code for Centre: BAST, 1st Form: ORIG, Z EINSICHT

Language in: DEUTSCH , Lang. of summary : ENGLISH

Fuer die erhoechte Unfallverwicklung junger Fahrer lassen sich zwei relativ unabhaengige Bedingungsfaktoren nennen: (1) Durch den Mangel an Verkehrserfahrung kommt es zu einem Ueberschaetzen der Fahrfertigkeiten auf der einen Seite und zu einem Unterschuetzen der Gefahren des Strassenverkehrs auf der anderen Seite (Anfaengerrisiken); (2) Die mit dem Fahren verbundenen emotionalen und leistungsbezogenen Aspekte gehen einher mit einer erhoechten Motivation zu riskanten Verhaltensweisen (Jugendlichkeitsrisiken). Die nachfolgend dargestellte Untersuchung mit 129 maennlichen Motorradfahrern zeigt, dass die Ursachen verstærkter Unfallverwicklung junger Motorradfahrer mit denen bei jungen Autofahrern vergleichbar sind. (A\*)

Subject Classification: / UNFALL UND MENSCH, 83 /

Controlled Terms: / VERKEHR, 0655 / SICHERHEIT, 1665 / JUGENDLICHER, 1748 / MOTORRADFAHRER, 1752 / RUECKSICHTSLOSIGKEIT, 2259 / VERSUCH, 6255 / PSYCHOLOGISCHE UNTERSUCHUNG, 2276 / UNFALL, 1643 / URSACHE, 9003 / UNFALLHAEBIGKEIT, 1612 /

## 2. Bestuurder

2.4 Quest Accession Number : 91P04134

327530 I.R.R.D. Publication

SELBSTKONZEPTE VON MOTORRADFAHRERN. EINE PSYCHOGRAPHISCHE ANALYSE VON MOTORRADFAHRERN ALS GRUNDLAGE DER ZIELGRUPPENBILDUNG FUER TRAININGSMASSNAHMEN

Source no: 9101BA020D

Author:

HAEBERLIN,F; UNIVERSITAET DER BUNDESWEHR, HAMBURG (DEU).  
FACHBEREICH PAEDAGOGIK

STANGE,B; UNIVERSITAET DER BUNDESWEHR, HAMBURG (DEU). FACHBEREICH  
PAEDAGOGIK

HENNING,U; UNIVERSITAET DER BUNDESWEHR, HAMBURG (DEU). FACHBEREICH  
PAEDAGOGIK

Publication: ZEITSCHRIFT FUER VERKEHRSSICHERHEIT KOELN DEUTSCHLAND  
BR, ISSN: 0044-3654

Type of Publication: PERIODIKUM, Date: 1990, Volume: 36, Number: 3  
, Pagination: 113-7, Reference: 10

Availability of Document:, Code for Centre: BAST, 1st Form: ORIG,  
Z EINSICHT

Language in: DEUTSCH , Lang. of summary : ENGLISH

Die haeufig beobachtete heterogene Zusammensetzung der Teilnehmerschaft von verkehrspaedagogischen Massnahmen findet ihren Ausdruck bevorzugt in unterschiedlichen Vorerfahrungen, Interessen und vielfaeltigen Erwartungen hinsichtlich der Inhalte und des Verlaufs der jeweiligen Veranstaltung. Neuere Ansaetze der Weiterbildung schlagen daher vor, bei der Ansprache potentieller Teilnehmer und der Zusammensetzung der tatsaechlichen Teilnehmerschaft von solchen Zielgruppen auszugehen, die hinsichtlich psychologischer Merkmale wie Einstellungen, Selbstkonzept, Interessen, und so weiter moeglichst homogen sind. Im folgenden werden die Ergebnisse einer Untersuchung an 148 Motorradfahrern mitgeteilt. Die Befunde zeigen, dass bei den Befragten kein einheitliches, auf das Motorradfahrern bezogenes Selbstkonzept vorliegt. Vielmehr lassen sich fuenf deutlich voneinander unterscheidbare Cluster ausmachen, die sich als jeweils homogene, psychographische Segmente fuer eine adressatenspezifische Vorbereitung und Durchfuehrung von verkehrspaedagogischen Massnahmen eignen. (A\*)

Subject Classification: / UNFALL UND MENSCH, 83 /

Controlled Terms: / VERKEHR, 0655 / SICHERHEIT, 1665 /  
UNFALLVERHUEUNG, 1661 / FAHRAUSBILDUNG, 1571 / MOTORRADFAHRER, 1752  
/ ERZIEHUNG, 1682 /

2. Bestuurder

2.5 Quest Accession Number : 90P07678

828497 I.R.R.D. Publication

A SURVEY OF MOTORCYCLISTS' ATTITUDES TO SELECTED ACCIDENT COUNTER-MEASURES

Source no: 9004TR390E

Author:

GOSNELL, O; SAMPLE SURVEYS LTD

Publication: TRRL CONTRACTOR REPORT

Publisher: TRANSPORT AND ROAD RESEARCH LABORATORY, OLD WOKINGHAM ROAD RG11 6AU CROWTHORNE BERKSHIRE UNITED KINGDOM, ISSN: 0266-7045

Type of Publication: REPORT, Date: 1990, Number: CR 193,

Pagination: 19P, Reference: 0

Availability of Document: , Code for Centre: TRRL, 1st Form: ORIG, PRICED, 2nd Form: MICRO, PRICED

Language in: ENGLISH

A survey was carried out amongst 600 motorcyclists by Sample Surveys Ltd between 9th and 14th October 1989. A number of questions were placed on the survey by the Transport and Road Research Laboratory covering training and safety issues. One hundred sampling points were selected, spread throughout the UK. At each point, 6 interviews were conducted using a structured questionnaire, a copy of which is included as an appendix. The sample was quota controlled by engine size of motorcycle, and information is given on the age, sex and riding experience of the motorcyclists. Results from the research include: (1) the majority of those surveyed believed that the current (October 1989) two part exam is a fair test of road riding skills, but 75% favoured the recently introduced road test format involving the examiner accompanying the candidate on another machine; (2) 85% of motorcyclists felt all should undertake some training; (3) 79% of motorcyclists were not in favour of learner riders carrying passengers; (4) approximately a half of the sample would not use leg protectors; and (5) 36% of riders reported wearing reflective or fluorescent clothing, and 59% expressed the view that all riders should do so

Subject Classification: / ACCIDENTS AND THE HUMAN FACTOR, 83 /

Controlled Terms: / SAFETY, 1665 / HUMAN FACTOR, 2257 / MOTORCYCLE, 1221 / ACCIDENT PREVENTION, 1661 / MOTORCYCLIST, 1752 / INTERVIEW, 0107 / ATTITUDE (PSYCHOL), 2267 / DRIVER TRAINING, 1571 / EDUCATION, 1682 /

2. Bestuurder

2.6 Quest Accession Number : 89P02140

819158 I.R.R.D. Publication  
MOTORCYCLE ACCIDENTS AMONG YOUTH  
Source no: 8811TT024E

Author:

MOE,D

Publication: REPORTS FROM LIIKENNETURVA

Publisher: LIIKENNETURVA (LT) (CENTRAL ORGANIZATION FOR TRAFFIC SAFETY), SITRATIE 7 SF-00420 HELSINKI FINLAND, ISSN: 0355-6654, ISBN: 951-9151-33-8

Type of Publication: REPORT, Date: 1987, Number: 33, Pagination: 51-67, Reference:

Language in: ENGLISH

PAPER PRESENTED AT THE PRI'S SYMPOSIUM ON THE ROAD SAFETY EDUCATION FOR CHILDREN AND YOUTH, ESPOO, FINLAND, 3RD JUNE 1986. YOUNG PEOPLE ARE PARTICULARLY PRONE TO ACCIDENTS IN COMPARISON TO THE AVERAGE PERSON'S RISK OF BEING INVOLVED IN AN ACCIDENT. THIS RISK IS AT ITS HIGHEST FOR YOUNG MALE DRIVERS AND MOTORCYCLISTS. AS MANY AS 60% OF THE ABOVE DRIVERS HAVE DIED WHILE DRIVING IN THEIR LEISURE TIME. THE ACCIDENT RISK OF YOUNG DRIVERS IS EXPLAINED BY THE FOLLOWING: DRIVING A CAR OR RIDING A MOTORCYCLE HAS BECOME A PASSION; THE EXCITEMENT AND ATTRACTION OF DRIVING EXCEEDS THE RISK; AN INEXPERIENCED AND SELF-CONFIDENT, BOLD MANNER OF DRIVING; THE NEED TO ASSERT ONESELF; PRESSURE FROM SOCIETY; DRIVING FOR THE FUN OF IT; CARS HAVE BECOME TOYS; AND, THE ROAD IS A STAGE WHERE ONE CAN LET OUT SOCIAL PRESSURES. IN ORDER TO IMPROVE THE ROAD SAFETY SITUATION CONCERNING YOUNG PEOPLE IT IS NECESSARY TO USE A COMMUNICATION METHOD SELECTED BY YOUNG PEOPLE THEMSELVES FOR OUR AIM SHOULD BE TO COMMUNICATE. FOR THE COVERING ABSTRACT SEE IRRD 819151

Subject Classification: / ACCIDENTS AND THE HUMAN FACTOR, 83 /  
Controlled Terms: / TRAFFIC, 0655 / SAFETY, 1665 / RISK TAKING, 2259 / MOTORCYCLIST, 1752 / ACCIDENT RATE, 1612 / CONFERENCE, 8525 / AGE, 1757 / ADOLESCENT, 1748 / DRIVER, 1772 /

3. Opleiding

3.1 Quest Accession Number : 93P01784

855689 I.R.R.D. Publication

MOTORCYCLE SAFETY

Source no: 9206TB186E

Author:

Publisher: NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, 400 7TH STREET, SW 20590 WASHINGTON D.C. USA

Type of Publication: REPORT, Date: 1991-04-01, Pagination: 16P, Reference:

Availability of Document: Centre: NATIONAL HIGHWAY TRAFFIC SAFETY ADMINIST

Language in: ENGLISH

THIS BOOKLET PRESENTS A SUMMARY OF MOTORCYCLE SAFETY AND SOME OF THE PROBLEMS THAT NEW RIDERS CAN EXPECT TO FACE. SECTION HEADINGS ARE AS FOLLOWS: HOW SAFE IS A MOTORCYCLE?; THE DEVELOPING PROBLEM--BACKGROUND; CAUSES OF MOTORCYCLE CRASHES; BUYING THE RIGHT MOTORCYCLE; AFTER YOU BUY, BUT BEFORE YOU DRIVE; PROTECTIVE CLOTHING AND EQUIPMENT; DRIVING TIPS; AND PREVENTIVE MAINTENANCE

Subject Classification: / VEHICLE DESIGN AND SAFETY, 91 /

Controlled Terms: / MOTORCYCLE, 1221 / SAFETY, 1665 / ACCIDENT, 1643 / CAUSE, 9003 / DRIVER TRAINING, 1571 / CRASH HELMET, 1687 / MAINTENANCE, 3847 /

### 3. Opleiding

3.2 Quest Accession Number : 92P01742

328076 I.R.R.D. Publication

DER EINFLUSS DES STUFENFUEHRERSCHEINS AUF DAS UNFALLGESCHEHEN 18- UND 19JAEHRIGER MOTORRADFAHRANFAENGER. EIN VORHER-/NACHHER-VERGLEICH AMTLICHER UNFALLZAHLEN 1984-1988

Source no: 9201BA046D

Author:

KOCH,H; INSTITUT FUER ZWEIRADSICHERHEIT, BOCHUM/WATTENSCHIED (DEU)

Publication: ZEITSCHRIFT FUER VERKEHRSSICHERHEIT KOELN DEUTSCHLAND BR, ISSN: 0044-3654

Type of Publication: PERIODIKUM, Date: 1991, Volume: 37, Number: 2, Pagination: 66-70, Reference: 17

Availability of Document: , Code for Centre: BAST, 1st Form: ORIG, Z EINSICHT

Language in: DEUTSCH, Lang. of summary : ENGLISH

1986 wurde in der Bundesrepublik Deutschland der Stufenfuehrerschein fuer 18- und 19jaehrige Motorradfahranfaenger eingefuehrt. Seit 1988 ist diese Regelung, die besagt, dass Fahranfaenger auf Motorraeder mit maximal 20 Kilowatt Leistung bei einem Mindestgewicht von 7 kg per Kilowatt beschraenkt sind, fuer alle Motorradfahranfaenger gueltig. Ziel der vorliegenden Untersuchung war, herauszufinden, ob diese Fuehrerscheinregelung die Unfallzahlen der 18- und 19jaehrigen Motorradfahrer verringern konnte. In Nordrhein-Westfalen wurde daher die Unfallbeteiligung von 18- und 19jaehrigen Motorradfahrern (pro 100.000 Motorraedern im Bestand) zwei Jahre vor und drei Jahre nach der Einfuehrung des Stufenfuehrerscheins miteinander verglichen. Als Kontrollgruppe dienten alle in den Bezugsjahren 1984 bis 1988 an Unfaellen beteiligte Motorradfahrer bezogen auf 100.000 Fahrzeuge im Bestand. Erste Ergebnisse zeigten ein signifikant hohes Unfallrisiko von 18- und 19jaehrigen Motorradfahranfaengern im Vergleich zur Kontrollgruppe. Die 18jaehrigen Fahranfaenger waren an 15.135 Unfaellen (pro 100.000 zugelassener Motorraeder) beteiligt, die 19jaehrigen an 7.355 (pro 100.000 Motorraeder im Bestand) waehrend die Kontrollgruppe nur in 4.124 Unfaelle verwickelt war. Fuer beide Gruppen nahm die Unfallbeteiligung in dem Zeitraum von 1984 bis 1988 ab. Dennoch war der Rueckgang der Unfaelle in der Kontrollgruppe (-36,63 Prozent) hoeher als in den Testgruppen (18jaehrige: -21,51 Prozent, 19jaehrige: -25,35 Prozent). Als Schlussfolgerung laesst sich festhalten, dass eine Beschraenkung der Motorradfahranfaenger auf leistungsschwaechere Maschinen das Unfallgeschehen nicht positiv beeinflusst. (A\*)

Subject Classification: / UNFALL UND MENSCH, 83 / UNFALLSTATISTIK, 81 /

Controlled Terms: / VERKEHR, 0655 / SICHERHEIT, 1665 / UNFALLVERHUELTUNG, 1661 / FUEHRERSCHEIN, 1550 / MOTORRADFAHRER, 1752 / UNFALLHAEFIGKEIT, 1612 / FAHRANFAENGER, 2214 / UNFALLSCHWERE, 1623 / JUGENDLICHER, 1748 / STATISTIK, 6555 /

### 3. Opleiding

#### 3.3 Quest Accession Number : 91P07287

837532 I.R.R.D. Publication

SAFETY TRAINING FOR YOUNG MOTORCYCLE OPERATORS IN QUEBEC  
L'EDUCATION DES JEUNES MOTOCYCLISTES AU QUEBEC

Source no: 9103TR251E

Author:

CLOUTIER, J-C; QUEBEC GOVERNMENT INSURANCE OFFICE, CANADA

Publication: PROCEEDINGS OF THE IVTH WORLD CONGRESS OF THE  
INTERNATIONAL ROAD SAFETY ORGANIZATION, TOKYO, JAPAN, JUNE 5-7, 1990

Publisher: LA PREVENTION ROUTIERE INTERNATIONALE (PRI), 75 RUE DE  
MAMER, BP 40 L-8058 LUXEMBOURG-BERTRANGE LUXEMBOURG

Type of Publication: REPORT, Date: 1990, Pagination: 65-79,  
Reference: 0

Availability of Document: , Code for Centre: TRRL, Code Assigned:  
SEEB9102610, 1st Form: ORIG, REF ONLY

Language in: FRANCAIS , Lang. of summary :  
ENGLISH/FRANCAIS/DEUTSCH

In the province of Quebec, Canada, safety training for young motorcyclists takes place in two stages. The first stage covers the learning of road safety as an official part of the school curriculum, which although not specifically for motorcycle riders, the program aims to make pupils as future drivers or riders safe on the roads. For motorcyclists, since 1985, applicants for a Quebec drivers licence must take a training course offered by an approved driving school. The course offers theory and practice which takes place on a closed track, and forms the second stage of training. A government committee is currently examining methods to improve motorcycling safety, and has recommended that more emphasis should be placed on training on the public roads, and further investigation into motorcycle rider psychology. The german title of this paper is 'Sicherheitstraining fuer junge motorradfahrer'. For the covering abstract of some of the papers see IRRD 837529

Subject Classification: / ACCIDENTS AND THE HUMAN FACTOR, 83 /

Controlled Terms: / CONFERENCE, 8525 / MOTORCYCLIST, 1752 /  
EDUCATION, 1682 / SAFETY, 1665 / ADOLESCENT, 1748 / CANADA, 8018 /  
SCHOOL, 0115 / ACCIDENT PREVENTION, 1661 /

3. Opleiding

3.4 Quest Accession Number : 90P11411

830827 I.R.R.D. Publication  
THE PROMOTION OF MOTORCYCLE SAFETY: TRAINING, EDUCATION, AND  
AWARENESS

Source no: 9008TR136E

Author:

SIMPSON, HM; TRAFFIC INJURY RES FOUND OF CANADA

MAYHEW, DR; TRAFFIC INJURY RES FOUND OF CANADA

Publication: HEALTH EDUCATION RESEARCH

Publisher: IRL PRESS LTD, PO BOX 1, EYNSHAM OX8 1JJ OXFORD UNITED  
KINGDOM, ISSN: 0268-1153

Type of Publication: SERIAL, Date: 1990-06, Volume: 5, Number: 2,  
Pagination: 257-64, Reference:

Availability of Document:, Code for Centre: TRRL, 1st Form: ORIG,  
REF ONLY

Centre: BLDSC

Language in: ENGLISH

The past few decades have witnessed an increase in the popularity of motorcycles as a mode of transportation. Coincidental with this growth in use has been an increase in the incidence of collisions and the number of deaths and injuries. A wide range of prevention measures has been introduced to reduce these losses. This paper reviews those designed to improve the skills and knowledge of the motorcycle rider and examines the effectiveness of these countermeasures. Very little support for the beneficial impact of education/training can be found in the evaluation literature. This paper examines several possible explanations for this result including the need to focus more on rider motivations and attitudes than on skills and suggests areas for improvement drawn from the field of health promotion and education. (A)

Subject Classification: / ACCIDENTS AND THE HUMAN FACTOR, 83 /  
Controlled Terms: / MOTORCYCLE, 1221 / ACCIDENT PREVENTION, 1661  
/ EDUCATION, 1682 / ATTITUDE (PSYCHOL), 2267 / DRIVER TRAINING, 1571  
/ PUBLICITY, 1692 / EFFICIENCY, 5911 / SAFETY, 1665 /



### 3. Opleiding

3.5 Quest Accession Number : 90P08760

327120 I.R.R.D. Publication

BREMSEN? AUSWEICHEN? DIE UEBERLEBENSFRAGE FUER MOTORRADFAHRER IN NOTSITUATIONEN

Source no: 9006BA010D

Author:

SCHIBALSKI, F

SEEMANN, H -P

WEBER, H

WOLFER, B

Publication: SCHRIFTENREIHE STRASSENVERKEHR

Publisher: ADAC - HAUPTABTEILUNG VERKEHR, BAUMGARTNERSTR. 53  
D-8000 MUENCHEN 70 DEUTSCHLAND BR, ISSN: 0343-9399

Type of Publication: PERIODIKUM, Date: 1985, Number: 31,

Pagination: 44S, Reference:

Availability of Document:, Code for Centre: BAST, 1st Form: ORIG,  
Z EINSICHT

Language in: DEUTSCH

Ueber das richtige Verhalten von Motorradfahrern in Gefahrensituationen, speziell beim Auftauchen eines unerwarteten Hindernisses, herrschen - selbst in Fachkreisen - noch immer falsche Auffassungen. Mit der Broschüre soll, insbesondere unter dem Aspekt der Fahrsicherheit, zu einer grundsätzlichen Korrektur dieser Auffassung beigetragen werden. Sie wendet sich dabei ausser an Motorradfahrer unter anderem an Personengruppen, die mit der Ausbildung von Motorradfahrern zu tun haben, den Polizeibeamten, Richter, Sachverstaendigen et cetera. Dabei wird unter anderem auf Untersuchungsergebnisse und Themen bezueglich der technischen Entwicklung der Bremssysteme beim motorisierten Zweirad, auf Grundlagen zur Fahrphysik des Motorrades, bisherige Untersuchungen zum Thema "Bremsen und Ausweichen mit dem Motorrad", Bremsen und Ausweichen im Hochgeschwindigkeitsbereich, dem Bremsvergleich zwischen Auto und Motorrad sowie auf die Entwicklung der Zweiradausbildung in der Bundesrepublik Deutschland eingegangen. Zwei Abschnitte befassen sich darueber hinaus mit der Verhaltenspsychologie des Motorradfahrers in Notsituationen sowie Folgerungen und Forderungen des ADACs

Subject Classification: / UNFALLFORSCHUNG, 80 / UNFALL UND MENSCH  
, 83 /

Controlled Terms: / MOTORRAD, 1221 / MOTORRADFAHRER, 1752 /  
BREMSE, 1361 / BREMSUNG, 1370 / FAHRAUSBILDUNG, 1571 /  
GESCHWINDIGKEIT, 5408 / ENTWICKLUNG, 9013 / SICHERHEIT, 1665 /  
VERHALTEN, 9001 / PSYCHOLOGIE, 2255 /

### 3. Opleiding

3.6 Quest Accession Number : 90P07678

828497 I.R.R.D. Publication

A SURVEY OF MOTORCYCLISTS' ATTITUDES TO SELECTED ACCIDENT COUNTER-MEASURES

Source no: 9004TR390E

Author:

GOSNELL, O; SAMPLE SURVEYS LTD

Publication: TRRL CONTRACTOR REPORT

Publisher: TRANSPORT AND ROAD RESEARCH LABORATORY, OLD WOKINGHAM ROAD RG11 6AU CROWTHORNE BERKSHIRE UNITED KINGDOM, ISSN: 0266-7045

Type of Publication: REPORT, Date: 1990, Number: CR 193, Pagination: 19P, Reference: 0

Availability of Document:, Code for Centre: TRRL, 1st Form: ORIG, PRICED, 2nd Form: MICRO, PRICED

Language in: ENGLISH

A survey was carried out amongst 600 motorcyclists by Sample Surveys Ltd between 9th and 14th October 1989. A number of questions were placed on the survey by the Transport and Road Research Laboratory covering training and safety issues. One hundred sampling points were selected, spread throughout the UK. At each point, 6 interviews were conducted using a structured questionnaire, a copy of which is included as an appendix. The sample was quota controlled by engine size of motorcycle, and information is given on the age, sex and riding experience of the motorcyclists. Results from the research include: (1) the majority of those surveyed believed that the current (October 1989) two part exam is a fair test of road riding skills, but 75% favoured the recently introduced road test format involving the examiner accompanying the candidate on another machine; (2) 85% of motorcyclists felt all should undertake some training; (3) 79% of motorcyclists were not in favour of learner riders carrying passengers; (4) approximately a half of the sample would not use leg protectors; and (5) 36% of riders reported wearing reflective or fluorescent clothing, and 59% expressed the view that all riders should do so

Subject Classification: / ACCIDENTS AND THE HUMAN FACTOR, 83 /  
Controlled Terms: / SAFETY, 1665 / HUMAN FACTOR, 2257 /  
MOTORCYCLE, 1221 / ACCIDENT PREVENTION, 1661 / MOTORCYCLIST, 1752 /  
INTERVIEW, 0107 / ATTITUDE (PSYCHOL), 2267 / DRIVER TRAINING, 1571 /  
EDUCATION, 1682 /

3. Opleiding

3.7 Quest Accession Number : 90P04727

826312 I.R.R.D. Publication

MOTORCYCLE ENGINE SIZE AND TRAFFIC SAFETY

Source no: 9001TR149E

Author:

MAYHEW,DR

SIMPSON,HM

Publisher: TRAFFIC INJURY RESEARCH FOUNDATION OF CANADA, 171  
NEPEAN STREET K2P 0B4 OTTAWA ONTARIO CANADA, ISBN: 0-920071-07-4

Type of Publication: REPORT, Date: 1989, Pagination: 132P,  
Reference:

Availability of Document:, Code for Centre: TRRL, Code Assigned:  
P8909048, 1st Form: ORIG, REF ONLY

Language in: ENGLISH

The objectives of this study are to: a) identify and review post 1984 literature on the relationship between motorcycle engine size and collision involvement; b) examine studies that have evaluated the effect of licencing restrictions on collisions; and c) consider other possible methods of reducing such accidents. A brief overview of motorcycle safety issues in North America and elsewhere is provided first, followed by a review of both the unpublished and published literature on the correlation between engine size and accident rate. Methods to decrease such accidents are also discussed, including: improved licencing and testing procedures; education and training; and improvements in motorcycle design

Subject Classification: / ACCIDENTS AND THE HUMAN FACTOR, 83 /  
VEHICLE DESIGN AND SAFETY, 91 /

Controlled Terms: / MOTORCYCLE, 1221 / MOTORCYCLIST, 1752 /  
BEHAVIOUR, 9001 / ACCIDENT PRONENESS, 2279 / ACCIDENT RATE, 1612 /  
ACCIDENT PREVENTION, 1661 / MOTOR, 3861 / DIMENSION, 9014 / DRIVER  
TRAINING, 1571 / DRIVING LICENCE, 1550 / DRIVING TEST, 1573 / RISK  
TAKING, 2259 / DESIGN (OVERALL DESIGN), 9011 /

3. Opleiding

3.8 Quest Accession Number : 90P04718

826211 I.R.R.D. Publication  
ADVANCED MOTORCYCLING. SECOND EDITION  
Source no: 9001TR140E

Author:

INSTITUTE OF ADVANCED MOTORISTS

Publisher: KOGAN PAGE LTD, 120 PENTONVILLE ROAD N1 9JN LONDON  
UNITED KINGDOM, ISBN: 1-85091-914-3

Type of Publication: BOOK, Date: 1989, Pagination: 189P,  
Reference: 0

Availability of Document:, Code for Centre: TRRL, Code Assigned:  
B8910636, 1st Form: ORIG, REF ONLY

Language in: ENGLISH

AN UPDATED VERSION OF THE BOOK GIVES INFORMATION AND ADVICE FOR  
MOTORCYCLISTS ON DEALING WITH PRESENT-DAY ROAD CONDITIONS.  
INFORMATION IS PROVIDED IN THE FOLLOWING CHAPTERS: 1. INTRODUCTION -  
THE NEED FOR ADVANCED RIDING; 2. THINKING AHEAD; 3. THE SYSTEMATIC  
METHOD; 4. OBSERVATION; 5. POSITIONING; 6. CORNERING; 7. BRAKING IN  
WET AND DRY CONDITIONS; 8. GEAR CHANGING; 9. OVERTAKING; 10.  
JUNCTIONS; 11. SIGNALS; 12. ROADCRAFT IN TOWN AND COUNTRY; 13.  
MOTORWAYS; 14. ECONOMICAL RIDING; 15. NIGHT RIDING; 16. SEASONAL  
VARIATIONS; 17. FOG; 18. REACTION TIMES; 19. ACCIDENTS; 20. PILLION  
PASSENGERS AND SIDECARS; 21. UNDERSTANDING THE MACHINE; 22. TYRES;  
23. CLOTHING; 24. HELMETS; 25. TOURING ABROAD; 26. NOW FOR THE TEST.  
ALSO INCLUDED ARE SECTIONS DETAILING LIST OF (IAM) TEST ROUTES, AND  
SIGNS AND SIGNALS

Subject Classification: / VEHICLE DESIGN AND SAFETY, 91 /  
ACCIDENTS AND THE HUMAN FACTOR, 83 /

Controlled Terms: / MOTORCYCLIST, 1752 / DRIVER TRAINING, 1571 /  
EDUCATION, 1682 / BOOK (TEXTBOOK), 8526 / VEHICLE HANDLING, 1646 /  
BRAKING, 1370 / WET ROAD, 3015 / OVERTAKING, 0627 / ACCIDENT  
PREVENTION, 1661 / CRASH HELMET, 1687 / MOTORCYCLE, 1221 / PASSENGER  
, 1715 / DRIVING TEST, 1573 / SKILL (ROAD USER), 2205 / CLOTHING,  
1688 / NIGHT, 9052 /

### 3. Opleiding

3.9 Quest Accession Number : 89P04428

814649 I.R.R.D. Publication

EVALUATION OF THE PRE LICENCE MOTORCYCLE TRAINING COURSE AT THE  
NEW SOUTH WALES TRAFFIC EDUCATION CENTRE

Source no: 8902AR149E

Author:

BATCHLER, MW

Publication: REPORT

Publisher: AUSTRALIA. OFFICE OF ROAD SAFETY, PO BOX 594 2601  
CANBERRA ACT AUSTRALIA, ISSN: 0810-770X, ISBN: 0-642-51195-0

Type of Publication: REPORT, Date: 1988-06, Number: CR 77,  
Pagination: 122P, Reference: 0

Availability of Document:, Code for Centre: TRRL, Code Assigned:  
P8903015, 1st Form: ORIG, REF ONLY

Centre: FEDERAL OFFICE OF ROAD SAFETY, 1st Form: ORIG, REF ONLY

Centre: BLLD

Language in: ENGLISH

THE DEVELOPMENT AND IMPLEMENTATION OF THE PRE LICENCE MOTORCYCLE  
TRAINING COURSE AT THE NSW TRAFFIC EDUCATION CENTRE WAS REVIEWED.  
SIX AREAS ARE DEALT WITH IN THE REPORT: DEVELOPING THE PRE LICENCE  
MOTOR CYCLE COURSE; ADEQUACY OF RESOURCES; THE PARTICIPANTS IN THE  
COURSE; THE CONTRIBUTION OF INDIVIDUALS AND GROUPS FROM THE  
COMMUNITY; PERCEPTIONS OF COURSE'S SUCCESS; REQUIREMENTS FOR RUNNING  
A SUCCESSFUL COURSE. THE REPORT CONCLUDES WITH A SET OF CONCLUSIONS  
RELATING TO EACH OF THESE AREAS (A)

Subject Classification: / ACCIDENTS AND THE HUMAN FACTOR, 83 /  
Controlled Terms: / EDUCATION, 1682 / MOTORCYCLE, 1221 /  
MOTORCYCLIST, 1752 / AUSTRALIA, 8006 / EVALUATION (ASSESSMENT), 9020  
/ DRIVING LICENCE, 1550 / IMPROVEMENT, 9108 / ROAD USER, 1755 /  
SAFETY, 1665 / DECREASE, 9009 / ACCIDENT RATE, 1612 / DATA  
ACQUISITION, 8623 / DRIVING INSTRUCTOR, 1582 / ATTITUDE (PSYCHOL),  
2267 / DRIVER TRAINING, 1571 /

### 3. Opleiding

3.10 Quest Accession Number : 89P03518

326260 I.R.R.D. Publication  
AUFGABEN DES MOTORSPORTS DES GST BEI DER AUSBILDUNG VON  
KRAFTFAHRZEUGFUEHRERN DER FAHRZEUGKLASSEN M UND A SOWIE ZUR  
FREIZEITGESTALTUNG JUGENDLICHER

Source no: 8901BA060D

Author:

THEURING, S; GESELLSCHAFT FUER SPORT UND TECHNIK, BERLIN (DDR)

Publication: FORSCHUNGSHEFTE ZUR VERKEHRSSICHERHEIT

Publisher: HOCHSCHULE VERKEHRSWESEN "FRIEDR. LIST",  
FORSCHUNGSINST. VERKEHRSSICH., FRIEDRICH-LIST-PLATZ 1 DDR-801  
DRESDEN DDR, ISSN: 0323-617X

Type of Publication: PERIODIKUM, Date: 1987, Number: 20,  
Pagination: 91-8, Reference: 0

Availability of Document: Code for Centre: BAST, 1st Form: ORIG,  
Z EINSICHT

Language in: DEUTSCH

DIE GESELLSCHAFT FUER SPORT UND TECHNIK (GST) BILDET JEDEN 2. KRAFTRADFUEHRER DER DDR AUS. DIE GESAMTE AUSBILDUNG ERFOLGT DURCH EHRENAMTLICHE FAHRLEHRER, DIE PRUEFUNGEN WERDEN VON EHRENAMTLICHEN FAHRERLAUBNISPRUEFERN ABGENOMMEN UND DIE FAHRLEHRER UND PRUEFER AUCH IN DER GST AUSGEBILDET. ES WIRD EIN NEU ERARBEITETES AUSBILDUNGSPROGRAMM VORGESTELLT. IM HINBLICK AUF DIE VERBESSERUNG DER FAHRAUSBILDUNG WURDEN ELEMENTE DER FAHRDYNAMIK, DER INFORMATIONSAUFNAHME UND -VERARBEITUNG WAEHREND DER FAHRT SOWIE DAS THEORETISCHE GEFAHRENTTRAINING IN DIE AUSBILDUNG AUFGENOMMEN. DER ZU VERMITTELNDE STOFF WURDE DEN KATEGORIEN BEHERRSCHEN, KENNEN UND INFORMIERTSEIN FUER DEN AUSBILDER UEBERSCHAUBAR ZUGEORDET. - NEBEN DER AUSBILDUNG IST DIE MOTORSPORTLICHE MASSENARBEIT EIN HAUPTBETAETIGUNGSFELD DER ORGANISATION. ZIEL DER AKTIVITAETEN IST DIE EINBEZIEHUNG MOEGLICHT VIELER JUGENDLICHER IN EINER MOTORSPORTLICHEN BETAETIGUNG. DESHALB WERDEN REGELMAESSIG MOTORSPORTVERANSTALTUNGEN ORGANISIERT, DIE GESCHICKLICHKEITSAHREN, MOTORCROSS, MOTORRADTOURISTIK, BILDERSUCHFAHRTEN UND TRADITIONSWETT- KAEMPFER UMFASSEN. JAEHRLICH WERDEN IN DIESEM RAHMEN CIRCA 1.500 VERSCHIEDENE VERANSTALTUNGEN DURCHGEFUEHRT, AN DENEN SICH DURCHSCHNITTLLICH JEWELLS 30 BIS 40 JUGENDLICHE BETEILIGEN. IN DER GST BETREIBEN UEBER 130.000 MITGLIEDER MOTORSPORT; MEHR ALS 15.000 FAHRLEHRER, UEBUNGSLEITER UND KAMPFRICHTER LEISTEN EINE UMFANGREICHE ARBEIT IM SINNE DER ERZIEHUNG SOZIALISTISCHER PERSOENLICHKEITEN

Subject Classification: / UNFALL UND MENSCH, 83 /  
Controlled Terms: / DEUTSCHE DEMOKRATISCHE REPUBLIK, 8029 /  
FAHRAUSBILDUNG, 1571 / FAHRANFAENGER, 2214 / MOTORRADFAHRER, 1752 /  
ERZIEHUNG, 1682 / FAHRPRUEFUNG, 1573 / ORGANISATION, 9057 /  
WETTBEWERB, 0129 / VERKEHR, 0655 / SICHERHEIT, 1665 /  
UNFALLVERHUEUNG, 1661 /  
Uncontrolled Terms: / MOTORSPORT /

### 3. Opleiding

3.11 Quest Accession Number : 89P01286

122972 I.R.R.D. Publication

EVALUATION DE L'IMPACT DU COURS DE CONDUITE OBLIGATOIRE ADAPTE A LA MOTOCYCLETTE

Source no: 8806RT675F

Author:

SIMARD,R; RAAQ - GOUVERNEMENT DU QUEBEC

Publisher: REGIE DE L'ASSURANCE AUTOMOBILE DU QUEBEC - GOUVERNEMENT DU QUEBEC, CHEMIN SAINT-LOUIS, 1134 G1S 1E5 SILLERY QUEBEC CANADA

Type of Publication: RAPPORT, Date: 1986-09, Pagination: 52P, Reference: 5

Availability of Document:., Code for Centre: RTAC, 1st Form: ORIG, PRET SEUL

Language in: FRANCAIS

CETTE EVALUATION VISE A MESURER L'IMPACT DE L'OBLIGATION FAITE A TOUS LES NOUVEAUX MOTOCYCLISTES DE SUIVRE UN COURS DE CONDUITE ADAPTE A LA MOTOCYCLETTE. ELLE PORTE ESSENTIELLEMENT SUR L'ATTEINTE DE L'OBJECTIF FONDAMENTAL, SOIT DE REDUIRE LA FREQUENCE DES ACCIDENTS IMPLIQUANT DES MOTOCYCLISTES. POUR CE FAIRE, ON A EFFECTUE UNE COMPARAISON DU TYPE "AVANT-APRES" AVEC GROUPE DE CONTROLE POUR LAQUELLE ON A TENU COMPTE DES CARACTERISTIQUES DES MOTOCYCLISTES TELLES QUE L'AGE, LE SEXE, ETC. TOUTEFOIS, ON N'A PAS PU TENIR COMPTE DU KILOMETRAGE. LES PRINCIPAUX RESULTATS DE L'ETUDE SONT QUE CETTE OBLIGATION A D'UNE PART ENTRAINE UNE DIMINUTION DU NOMBRE DES NOUVEAUX MOTOCYCLISTES, MAIS D'AUTRE PART, N'A PAS REDUIT LE TAUX D'ACCIDENTS

Subject Classification: / ACCIDENTS ET FACTEUR HUMAIN, 83 /

Controlled Terms: / APPRENTISSAGE (CONDUCTEUR), 1571 / MOTOCYCLISTE, 1752 / ACCIDENT, 1643 / ETUDE AVANT APRES, 0170 / PREVENTION DES ACCIDENTS, 1661 / CANADA, 8018 / TAUX D'ACCIDENTS, 1612 / EVALUATION, 9020 / COURS (ENSEIGN), 8516 /

3. Opleiding

3.12 Quest Accession Number : 88P14027

817338 I.R.R.D. Publication

THE EVALUATION OF MOTORCYCLE DRIVER TRAINING. PROJECT FINAL REPORT

Source no: 8811TR398E

Author:

Publisher: UNIVERSITY OF WALES INSTITUTE OF SCIENCE AND TECHNOLOGY (UWIST), DEPARTMENT OF TOWN PLANNING, TRANSPORT AND TRAFFIC STUDIES UNIT, KING EDWARD VII AVENUE CF1 3NU CARDIFF UNITED KINGDOM

Type of Publication: REPORT, Date: 1982-06, Pagination: 316P, Reference: 0

Availability of Document:, Code for Centre: TRRL, Code Assigned: P8804049, 1st Form: ORIG, REF ONLY

Language in: ENGLISH

THIS REPORT DESCRIBES RESEARCH TO DETERMINE WHETHER PRESENT FORMS OF MOTORCYCLE TRAINING ARE EFFECTIVE IN REDUCING THE NUMBER AND SEVERITY OF ACCIDENTS TO RIDERS. EIGHT CHAPTERS COVER: 1, INTRODUCTION; 2, TRAINING; 3, MOTORCYCLING AND MOTORCYCLISTS; 4, COMPARISON OF THE UK WITH OTHER COUNTRIES; 5, THE TAKE-UP OF TRAINING; 6, ACCIDENTS AND MOTORCYCLING; 7, METHODS OF EVALUATION; 8, CONCLUSIONS

Subject Classification: / ACCIDENTS AND THE HUMAN FACTOR, 83 /  
Controlled Terms: / MOTORCYCLE, 1221 / MOTORCYCLIST, 1752 /  
DRIVER TRAINING, 1571 / EDUCATION, 1682 / ACCIDENT, 1643 / INJURY,  
2163 / PREVENTION, 1670 / SAFETY, 1665 / EVALUATION (ASSESSMENT),  
9020 /



### 3. Opleiding

3.13 Quest Accession Number : 88P11929

815466 I.R.R.D. Publication

INFLUENCING RISK-TAKING BEHAVIOUR. A MAJOR TASK OF MOTORCYCLE RIDER PROGRAMMES

Source no: 8809SW063E

Author:

KOCH,H; INSTITUT FUER ZWEIRADSICHERHEIT

Publication: ROAD USER BEHAVIOUR: THEORY AND RESEARCH. (PAPERS PRESENTED AT THE 2ND INTERNATIONAL CONFERENCE ON ROAD SAFETY, GRONINGEN, NETHERLANDS, AUGUST 31-SEPTEMBER 4, 1987)

Publisher: VAN GORCUM & COMP BV, PO BOX 43 9400 AA ASSEN NETHERLANDS, ISBN: 90-232-2369-1

Type of Publication: BOOK, Date: 1988, Pagination: 498-505, Reference: 32

Availability of Document:, Code for Centre: SWOV, Code Assigned: PB27013, 1st Form: ORIG, REF ONLY

Language in: ENGLISH

EVALUATION OF MOTORCYCLE RIDER TRAINING OFTEN SHOWS THAT THERE IS NO SUCCESS IN TERMS OF ACCIDENT REDUCTION. IN GERMANY, FOR EXAMPLE, ACCIDENT FIGURES HAVE NOT BEEN REDUCED ALTHOUGH LICENSING REGULATIONS WERE CHANGED IN 1981 IN ORDER TO REDUCE ACCIDENTS BY MAKING CLASSROOM LESSONS, SKILL-TRAINING, AND IN-TRAFFIC INSTRUCTIONS COMPULSORY FOR BEGINNER MOTORCYCLE RIDERS. OUR RESEARCH SHOWS THE MAIN INFLUENCES OF PERSONAL CHARACTERISTICS OF MOTORCYCLE RIDERS (E.G. AGE, ATTITUDES) BESIDE KNOWLEDGE AND RIDING SKILLS ON ACCIDENT INVOLVEMENT. SUCCESSFUL RIDER TRAINING SHOULD THEREFORE BE MORE THAN SKILL TRAINING AND KNOWLEDGE TEACHING. BASED ON OUR RESEARCH A COMPLETELY NEW SYSTEM OF INTEGRATED RIDER EDUCATION AND DRIVER IMPROVEMENT HAS BEEN DEVELOPED CONSISTING OF: (A) A COMPULSORY CURRICULUM FOR NOVICE RIDER TRAINING IN DRIVING SCHOOLS; (B) AN ADVANCED VOLUNTARILY IN-TRAFFIC TRAINING COURSE; (C) ADDITIONAL EDUCATIONAL MEASURES OF ONGOING DRIVER IMPROVEMENT (DEVELOPMENT STILL IN PROGRESS). (A) FOR THE COVERING ABSTRACT OF THE CONFERENCE SEE IRRD 815404

Subject Classification: / ACCIDENTS AND THE HUMAN FACTOR, 83 /

Controlled Terms: / CONFERENCE, 8525 / EVALUATION (ASSESSMENT), 9020 / MOTORCYCLIST, 1752 / DRIVER TRAINING, 1571 / RISK TAKING, 2259 / BEHAVIOUR, 9001 / ACCIDENT PREVENTION, 1661 / STATISTICS, 6555 / RECENTLY QUALIFIED DRIVER, 2214 / EXPERIENCE (HUMAN), 2225 / PERSONALITY, 2258 / ADOLESCENT, 1748 / ACCIDENT PRONENESS, 2279 / DRIVING LICENCE, 1550 / IMPROVEMENT, 9108 / GERMANY, FEDERAL REPUBLIC OF, 8125 /

3. Opleiding

3.14 Quest Accession Number : 88P11883

815420 I.R.R.D. Publication

THE IMPORTANCE OF DRIVER DECISION MAKING AND INTERACTION IN ACCIDENTS INVOLVING MOTORCYCLES

Source no: 8809SW017E

Author:

BROOKS,P; CRANFIELD INSTITUTE OF TECHNOLOGY, ENGLAND

Publication: ROAD USER BEHAVIOUR: THEORY AND RESEARCH. (PAPERS PRESENTED AT THE 2ND INTERNATIONAL CONFERENCE ON ROAD SAFETY, GRONINGEN, NETHERLANDS, AUGUST 31-SEPTEMBER 4 1987)

Publisher: VAN GORCUM & COMP BV, PO BOX 43 9400 AA ASSEN NETHERLANDS, ISBN: 90-232-2369-1

Type of Publication: BOOK, Date: 1988, Pagination: 152-8, Reference: 11

Availability of Document:, Code for Centre: SWOV, Code Assigned: PB26967, 1st Form: ORIG, REF ONLY

Language in: ENGLISH

THE MAJOR CONCLUSIONS WHICH COULD BE DRAWN FROM THE RESULTS OF THIS STUDY WERE FOUND TO BE CONSISTENT WITH THOSE DRAWN FROM THE STREET SURVEY OF MOTORCYCLIST OPINIONS AND A SIMILAR SURVEY CONDUCTED THROUGH ANOTHER NATIONAL MAGAZINE. ON AVERAGE, 97% OF THE MOTORCYCLISTS WERE IN FAVOUR OF THE IMPROVEMENT OF DRIVER AWARENESS FOR MOTORCYCLES AND THEIR RIDERS. OF THE COUNTERMEASURE SUGGESTIONS PROVIDED, THE IMPROVEMENT OF DRIVER AWARENESS AND NOVICE RIDER BEHAVIOUR WAS PERCEIVED TO HAVE THE GREATEST POTENTIAL EFFECTIVENESS. FURTHERMORE, IT WAS FOUND THAT THE RIDERS INTERPRETED DRIVER ERROR AS STEMMING FROM BOTH LACK OF KNOWLEDGE AND FROM A LACK OF RESPECT. HENCE, THIS INDICATED THE IMPORTANCE OF CONSIDERING BOTH TECHNICAL AWARENESS AND SOCIAL AWARENESS WHEN ATTEMPTING TO UNDERSTAND AND COUNTER DRIVER ERROR. NO INTERPRETATION OF DRIVER ERROR WAS OFFERED BY THE RESPONDENTS WHICH COULD NOT BE ENCOMPASSED WITHIN THE CONCEPTS OF TECHNICAL AND SOCIAL AWARENESS. THE RESULTS EMPHASIZE THE IMPORTANCE OF CONTINUED WORK IN THE AREA OF DRIVER DECISION MAKING AND INTERACTION WITH MOTORCYCLES, AND THE SUITABILITY OF THE PROPOSED FRAMEWORK FOR GUIDING FUTURE RESEARCH. FOR THE COVERING ABSTRACT OF THE CONFERENCE SEE IRRD 815404

Subject Classification: / ACCIDENTS AND THE HUMAN FACTOR, 83 /  
Controlled Terms: / CONFERENCE, 8525 / MOTORCYCLIST, 1752 /  
DECISION PROCESS, 2248 / RISK TAKING, 2259 / DRIVER, 1772 / CAR,  
1243 / COLLISION, 1631 / ACCIDENT RATE, 1612 / ERROR, 6440 / CAUSE,  
9003 / ACCIDENT PREVENTION, 1661 / INTERVIEW, 0107 / DRIVER TRAINING  
, 1571 / UNITED KINGDOM, 8119 /

3. Opleiding

3.15 Quest Accession Number : 88P09173

812490 I.R.R.D. Publication

TWO IMPORTANT TRENDS IN MOTORCYCLE SAFETY REGULATIONS: RIDER EDUCATION AND CONSPICUITY IMPROVEMENT

Source no: 8806TR021E

Author:

WINN, GL; AMERICAN HISTORIC RACING MOTORCYCLE ASSOCIATION

Publication: SAE TECHNICAL PAPER 870604 (P-193 ACCIDENT RECONSTRUCTION: AUTOMOBILES, TRACTOR-SEMITRAILERS, MOTORCYCLES AND PEDESTRIANS)

Publisher: SOCIETY OF AUTOMOTIVE ENGINEERS INC, 400 COMMONWEALTH DRIVE 15096 WARRENDALE PENNSYLVANIA USA, ISBN: 0-89883-454-6

Type of Publication: REPORT, Date: 1987-02, Pagination: 147-52, Reference: 7

Availability of Document: Centre: SOCIETY OF AUTOMOTIVE ENGINEERS, 1st Form: ORIG, Code for Centre: TRRL, Code Assigned: SEEP8711180, 1st Form: ORIG, REF ONLY

Language in: ENGLISH

SCIENTIFIC INQUIRY INTO THE CAUSES OF MOTORCYCLE ACCIDENTS POINTS TO TWO SIGNIFICANT FEATURES, NAMELY INEXPERIENCE BY THE MOTORCYCLE OPERATOR AND THE DIFFICULTY OF DETECTING MOTORCYCLES AND THEIR SPEED IN ONCOMING TRAFFIC. TWO RECENT TRENDS IN MOTORCYCLE SAFETY HAVE EVOLVED IN THE PAST DECADE WHICH PROMISE TO EASE THE RISING FATALITY AND ACCIDENT RATES. FIRST, WHILE AUTOMOBILE DRIVER TRAINING HAS BEEN AVAILABLE FOR YEARS, ONLY RECENTLY HAS A STANDARD MOTORCYCLE CURRICULUM BEEN DEVELOPED, RECENTLY BEING SET IN PLACE AND FUNDED BY LEGISLATIVE BILLS IN TWENTY-THREE STATES. SECOND, IN AN EFFORT TO PROVIDE IN-TRAFFIC CONSPICUITY FOR MOTORCYCLE OPERATORS, THE NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION RECENTLY DECIDED TO AMEND ITS FEDERAL MOTOR VEHICLE SAFETY STANDARDS TO ALLOW "HIGH TECHNOLOGY" HEADLIGHTS, NOTABLY ONES WHICH MODULATE LIGHT INTENSITY. THIS PAPER TRACKS THE HISTORY, DEVELOPMENT, AND SCIENTIFIC SUPPORT FOR MOTORCYCLE EDUCATION LEGISLATION AND IMPROVED IN-TRAFFIC CONSPICUITY. (A) FOR THE COVERING ABSTRACT SEE IRRD 812475

Subject Classification: / VEHICLE DESIGN AND SAFETY, 91 / ACCIDENTS AND THE HUMAN FACTOR, 83 /

Controlled Terms: / MOTORCYCLE, 1221 / MOTORCYCLIST, 1752 / ACCIDENT, 1643 / CAUSE, 9003 / DRIVER TRAINING, 1571 / EDUCATION, 1682 / PREVENTION, 1670 / HEADLAMP, 1342 / ACCIDENT PREVENTION, 1661 / DEVELOPMENT, 9013 /

### 3. Opleiding

3.16 Quest Accession Number : 88P06624

325795 I.R.R.D. Publication  
REIZ MIT HOHEM RISIKO: JUGENDLICHE UND MOTORISIERT  
ZWEIRADFahrzeuge

Source no: 8804BA045D

Author:

KLUTE, H; HESSISCHES INSTITUT FUER LEHRERFORTBILDUNG, WETZLAR  
(DEU). ZWEIGSTELLE WETZLAR

Publication: ZEITSCHRIFT FUER VERKEHRSERZIEHUNG DORTMUND  
DEUTSCHLAND BR, ISSN: 0341-2334

Type of Publication: PERIODIKUM, Date: 1987, Volume: 37, Number: 2  
, Pagination: 31-40, Reference:

Availability of Document:, Code for Centre: BAST, 1st Form: ORIG,  
Z EINSICHT

Language in: DEUTSCH

DIE ARBEIT BEGINNT MIT DER DARSTELLUNG DES PROBLEMS UND DER  
GESCHICHTE DER MOTORRADUNFAELLE IN DER BUNDESREPUBLIK. IM FOLGENDEN  
WIRD EIN UEBERBLICK UEBER DIE WICHTIGSTEN MASSNAHMEN VERSCHIEDENER  
TRAEGER GEGEBEN ("EMS" - EINFUEHRUNG IN DEN MOTORISIERTEN  
STRASSENVERKEHR "FUENFZIG KUBIK", "MOFAKURS", "ZWEIRADTRAINING VOM  
MOFA BIS ZUM LEICHTKRAFTRAD", MOTORRAD-SICHERHEITSTRaining,  
"MOFA-VERORDNUNG" DES BUNDESMINISTERS FUER VERKEHR,  
STUFENFUEHRERSCHEIN, FUEHRERSCHEIN AUF PROBE, VEREINBARUNG UEBER DIE  
GESTALTUNG DER MOTORRADWERBUNG). DIE WIRKSAMKEIT DER ERWAEHNTEN  
MASSNAHMEN WIRD EINGESCHAETZT UND ES WERDEN VORAUSSETZUNGEN  
VERKEHRSPAEDAGOGISCHER ZIELGEWINNUNG BEHANDELT. INSGESAMT GEHT ES UM  
DIE ERFASSUNG DES PROBLEMS AUS PAEDAGOGISCHER SICHT

Subject Classification: / UNFALL UND MENSCH, 83 /  
Controlled Terms: / VERKEHR, 0655 / SICHERHEIT, 1665 / ERZIEHUNG,  
1682 / UNFALLVERHUETUNG, 1661 / JUGENDLICHER, 1748 / MOTORRAD, 1221  
/ UNFALL, 1643 / STATISTIK, 6555 / UNFALLHAEFUEHRIGKEIT, 1612 /

3. Opleiding

3.17 Quest Accession Number : 88P06499

811254 I.R.R.D. Publication

AN EVALUATION OF THE EFFECTIVENESS OF A ONE DAY TRAINING PROGRAMME FOR LEARNER MOTORCYCLISTS

Source no: 8803TR328E

Author:

CLAYTON,AB; BRITISH INSTITUTE OF TRAFFIC EDUCATION RESEARCH

SUDLOW,DE; BRITISH INSTITUTE OF TRAFFIC EDUCATION RESEARCH

Publication: TRRL CONTRACTOR REPORT

Publisher: TRANSPORT AND ROAD RESEARCH LABORATORY, OLD WOKINGHAM ROAD RG11 6AU CROWTHORNE BERKSHIRE UNITED KINGDOM, ISSN: 0266-7045

Type of Publication: REPORT, Date: 1987, Number: CR 56,

Pagination: 66P, Reference: 6

Availability of Document:, Code for Centre: TRRL, 1st Form: ORIG, PRICED, 2nd Form: FICHE, PRICED

Language in: ENGLISH

A SAMPLE OF 203 LEARNER MOTORCYCLISTS WITH NO OR MINIMAL ON-ROAD RIDING EXPERIENCE WAS RECRUITED FROM THE GENERAL RIDING POPULATION. HALF THE RIDERS UNDERWENT AN EIGHT-HOUR OFF-ROAD TRAINING COURSE. PERFORMANCE ON A PRACTICAL SKILLS TEST, ATTITUDE SCALE, AND KNOWLEDGE TEST WAS MEASURED AT THE START OF THE EXPERIMENT AND, AGAIN, TWO MONTHS LATER. THE UNTRAINED GROUP COMMITTED SIGNIFICANTLY MORE ERRORS ON THE SKILLS TEST BOTH IMMEDIATELY AFTER TRAINING AND ALSO TWO MONTHS LATER. THIS DIFFERENCE WAS LARGELY ATTRIBUTABLE TO THE FAILURE OF THE UNTRAINED GROUP TO TAKE REAR OBSERVATIONS CORRECTLY AND ALSO TO MAINTAIN THE BALANCE OF THE MACHINE AND RIDER. BOTH GROUPS SHOWED SOME CHANGES IN ATTITUDE AND SOME IMPROVEMENT IN KNOWLEDGE ABOUT MOTORCYCLING SAFETY OVER TWO MONTHS BUT THE DIFFERENCE BETWEEN THE TRAINED AND UNTRAINED GROUPS WERE SLIGHT. OVERALL, THE KNOWLEDGE ABOUT SOME SAFETY TOPICS WAS EXTREMELY POOR

Subject Classification: / ACCIDENTS AND THE HUMAN FACTOR, 83 /

Controlled Terms: / MOTORCYCLIST, 1752 / SAFETY, 1665 / DRIVER TRAINING, 1571 / SKILL (ROAD USER), 2205 / ERROR, 6440 / BEFORE AND AFTER STUDY, 0170 / ATTITUDE (PSYCHOL), 2267 / UNITED KINGDOM, 8119 / DRIVING APTITUDE, 2226 /

### 3. Opleiding

3.18 Quest Accession Number : 88R00915

630122 I.R.R.D. Research  
FURTHER EDUCATION OF MOTORCYCLE DRIVERS IN SCANDINAVIA - AN  
INVENTORY OF PROBLEMS

FORTBILDNING AV MC-FOERARE; EN PROBLEMINVENTERING

Source no: 8604VT514E

Investigator:

FREDEN,S; VTI

Research Organization: STATENS VAEG- OCH TRAFIKINSTITUT,  
TRAFIKANT- OCH FORDONSAVDELNINGEN (SWEDISH ROAD AND TRAFFIC RESEARCH  
INSTITUTE, ROAD USER AND VEHICLE DIVISION), Postal Code: S-58101,  
LINKOEPING, SWEDEN, Project Code: 50313-6

Sponsor: NORDISKA KOMMITTEN FOER TRAFIKSAEKERHETSFOERSKNING (NKT)  
(NORDIC COMMITTEE FOR TRAFFIC SAFETY RESEARCH),  
KOMMUNIKATIONSDEPARTEMENTET, S-10333, STOCKHOLM, SWEDEN

Project, Start date: 1986-03, Estimated completion date: 1987,  
Status: RESEARCH COMPLETED, Date: 1988-04

IRF No: 1(676)

THE AIM OF THE PROJECT IS TO MAKE A COMPILATION OF METHODS AND  
PROGRAMS USED IN COURSES FOR FURTHER EDUCATION AND TRAINING OF  
MOTORCYCLE DRIVERS. THE COMPILATION WILL ALSO INCLUDE A SURVEY OF  
THEORIES AND STATEMENTS FORMING THE BASE OF THESE METHODS AND  
PROGRAMS. A NUMBER OF REPRESENTATIVE ORGANIZATIONS THAT ARRANGE  
THESE COURSES WILL BE VISITED. METHODS USED TO STIMULATE THE  
PARTICIPATION IN THE COURSES WILL BE STUDIED IN THIS CONNECTION AS  
WELL AS METHODS TO FOLLOW UP THE EFFICIENCY OF THE EDUCATION

Subject Classification: / ACCIDENTS AND THE HUMAN FACTOR, 83 /  
Controlled Terms: / EDUCATION, 1682 / TRAINING (DRIVER), 1571 /  
MOTORCYCLIST, 1752 / COURSE (LECTURE), 8516 / TRAFFIC SAFETY, 1665 /  
METHOD, 9102 / EFFICIENCY, 5911 / RESEARCH PROJECT, 8557 /

#### 4. Voertuig

4.1 Quest Accession Number : 91P05442

838586 I.R.R.D. Publication

ESM-4 - A LIGHTWEIGHT SAFETY MOTORCYCLE

Source no: 9101VT274E

Author:

WATSON, PMF; TRRL

DONNE, GL; TRRL

Publication: TWELFTH INTERNATIONAL TECHNICAL CONFERENCE ON EXPERIMENTAL SAFETY VEHICLES, GOTHENBURG, SWEDEN, 29 MAY - 1 JUNE, 1989. VOLUME 2

Publisher: U.S. DEPARTMENT OF TRANSPORTATION. NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, 400 7TH STREET S.W. 20590 WASHINGTON DC USA

Type of Publication: REPORT, Date: 1990, Pagination: 1352-7, Reference: 15

Availability of Document:., Code for Centre: VTI, Code Assigned: 90.0753:2, 1st Form: ORIG, REF ONLY, Code for Centre: TRRL, Code Assigned: SEEB9009618, 1st Form: ORIG, REF ONLY

Language in: ENGLISH

The United Kingdom has previously shown safety motorcycles based on large machines. These have incorporated the findings of research into both primary safety and secondary safety features. However, a large proportion of the machines used in the UK are of small capacity and many accidents occur to inexperienced riders. Consequently the exhibit for the 1989 Experimental Safety Vehicle (ESV) Conference is based on a 125 cubic centimetre motorcycle which satisfies the UK regulations as a machine which can be ridden under a learner's licence. Experimental Safety Motorcycle (ESM)-4 incorporates features designed to enhance conspicuity, anti-lock brakes, protection for the rider in frontal impacts, by means of an air-bag system, and a leg-protecting fairing. The paper discusses the design of these features and compliance with relevant specifications. (A) For the covering abstract of the conference, see IRRD 837684

Subject Classification: / VEHICLE DESIGN AND SAFETY, 91 /

Controlled Terms: / CONFERENCE, 8525 / MOTORCYCLE, 1221 / LIGHTWEIGHT, 9038 / ANTI LOCKING DEVICE, 1360 / AIR BAG (RESTRAINT SYSTEM), 1386 / VISIBILITY, 6783 / LEG (HUMAN), 2023 / PROTECTION, 1670 / DESIGN (OVERALL DESIGN), 9011 / PROTOTYPE, 9109 / SAFETY, 1665 / BRAKE, 1361 / FRONT, 9025 / REAR, 9067 / WHEEL, 1372 / SPECIFICATION (STANDARD), 0139 /

#### 4. Voertuig

4.2 Quest Accession Number : 90P11041

327289 I.R.R.D. Publication

ENTWICKLUNG VON ZWEIRADREIFEN - BEITRAG ZUR ERHOEHUNG DER AKTIVEN SICHERHEIT VON KRAFTRAEDERN

Source no: 9008BA039D

Author:

THOMAS,M; VEB REIFENWERK, HEIDENAU (DDR)

Publication: KRAFTFAHRZEUGTECHNIK BERLIN DDR, ISSN: 0023-4419

Type of Publication: PERIODIKUM, Date: 1990, Volume: 40, Number: 3  
, Pagination: 72-6, Reference: 29

Availability of Document:, Code for Centre: BAST, 1st Form: ORIG,  
Z EINSICHT

Language in: DEUTSCH

Ausgehend von einigen theoretischen Betrachtungen zur Bedeutung des Reifens und die konstruktionsseitige Beeinflussbarkeit seiner Gebrauchswertparameter wird in stark vereinfachter Form die Reifenneuentwicklung am Beispiel des NQR 110/80 - 16 S dargestellt. Dabei behandelt werden Konstruktionsprinzipien, Ausfuehrungen und der Einsatz von Kraftradreifen, die Reifenaufbauteile, Gebrauchswerteigenschaften sowie abgeleitete Forderungen bezueglich der Karkassenkonstruktion, der Konstruktion der Reifenlauf flaechen, der Wulstgestaltung sowie der Betriebsbedingungen. Desweiteren werden die Besonderheiten des NQR hinsichtlich der Konstruktion und des Einsatzes am Fahrzeug herausgearbeitet. Mit der Entwicklung NQR ist ein wesentlicher Schritt in Richtung der Erhoehung der aktiven Sicherheit des Kraftrades insgesamt getan worden. Im einzelnen aufgefuehrt werden konstruktive Besonderheiten dieses Reifens

Subject Classification: / FAHRZEUGKONSTRUKTION, 91 /

Controlled Terms: / MOTORRAD, 1221 / REIFEN, 1381 / REIFENPROFIL, 1392 / BODENHAFTUNG, 5440 / BAU, 3655 / VERBESSERUNG, 9108 / SICHERHEIT, 1665 / ENTWICKLUNG, 9013 /



4. Voertuig

4.3 Quest Accession Number : 90P10718

830294 I.R.R.D. Publication

A FIELD TRIAL OF MOTORCYCLES FITTED WITH AN ANTI-LOCK BRAKE SYSTEM

Source no: 9007TR165E

Author:

DONNE, GL; TRRL, UK

CART, J; LUCAS-GIRLING LTD, UK

Publication: ELEVENTH INTERNATIONAL TECHNICAL CONFERENCE ON EXPERIMENTAL SAFETY VEHICLES, WASHINGTON DC, MAY 12-15, 1987

Publisher: US DEPARTMENT OF TRANSPORTATION. NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, 400 7TH STREET SW 20590 WASHINGTON DC USA

Type of Publication: BOOK, Date: 1987, Pagination: 909-16, Reference: 7

Availability of Document: , Code for Centre: TRRL, Code Assigned: SEEB8910639, 1st Form: ORIG, REF ONLY

Language in: ENGLISH

Although all types of vehicles are subject to skidding, particularly in adverse weather conditions, powered two-wheeled vehicles have the highest incidence of accidents in which it is a factor. The inherent instability of these vehicles makes capsizing almost certain if a wheel is locked during braking, leading to risk or injury to the rider. There is a growing body of evidence, both from accident studies and observation of the behaviour of motorcyclists, that riders do not brake in a safe and effective manner. In particular, the front brake is used insufficiently or not at all; this is said by many riders to be because of their fear of the consequences of locking the wheel. Research into the application of anti-lock brake systems for motorcycles has been conducted by the Transport and Road Research Laboratory (TRRL) during the last twenty years. This has demonstrated the possibility of reducing the incidence of skidding and improving braking performance generally by the widespread use of such systems. Research has reached the stage where reliable anti-lock systems are available but little is known about the way in which riders would use them and how they would react to their presence on a motorcycle. TRRL and Lucas Girling Limited have therefore undertaken a joint project to acquire data from a field trial of seven motorcycles equipped with an anti-lock system developed by Lucas Girling. The machines are in use with a number of Police forces and commercial organisations and are expected to cover relatively high mileages during the three year duration of the trial. This paper represents some of the information obtained at the half-way stage of the trial and gives details of reliability and riders' reaction and comments. (A) For the covering abstract of the conference see IRRD 830189

Subject Classification: / VEHICLE DESIGN AND SAFETY, 91 /

Controlled Terms: / CONFERENCE, 8525 / ANTI LOCKING DEVICE, 1360 / MOTORCYCLE, 1221 / BRAKE, 1361 / VEHICLE HANDLING, 1646 / SAFETY, 1665 / PROTOTYPE, 9109 /

#### 4. Voertuig

4.4 Quest Accession Number : 90P10714

830290 I.R.R.D. Publication

ESM - A MOTORCYCLE DEMONSTRATING PROGRESS FOR SAFETY

Source no: 9007TR161E

Author:

WATSON, PM; TRRL, UK

Publication: ELEVENTH INTERNATIONAL TECHNICAL CONFERENCE ON EXPERIMENTAL SAFETY VEHICLES, WASHINGTON DC, MAY 12-15, 1987

Publisher: US DEPARTMENT OF TRANSPORTATION. NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, 400 7TH STREET SW 20590 WASHINGTON DC USA

Type of Publication: BOOK, Date: 1987, Pagination: 883-8, Reference: 13

Availability of Document: , Code for Centre: TRRL, Code Assigned: SEEB8910639, 1st Form: ORIG, REF ONLY

Language in: ENGLISH

In this article, the safety features incorporated into the third Experimental Safety Motorcycle ESM3, developed by the Transport and Road Research Laboratory (TRRL) are described. This vehicle is based upon the Norton Interpol II rotary engine motorcycle, normally of 600 cc. The safety features are: (1) Lucas-Girling anti-lock front and rear brakes; (2) two daytime running lights to enhance conspicuity; (3) leg protection provided by a safety fairing constructed to TRRL criteria by Norton Motors; (4) electronic speedometer which also provides the continuous monitor to the rider that both anti-lock brake systems are functioning; (5) a modified fuel tank to prevent excessive fuel spillage in accidents; and (6) ignition interlocks are fitted to both stands. In the rest of the paper the continuing work of TRRL on frontal impacts, simulation studies and data analysis is presented. For papers detailing the features of ESM 1 and ESM 2 see IRRD 257115 and 801542. For the covering abstract of the conference see IRRD 830189

Subject Classification: / VEHICLE DESIGN AND SAFETY, 91 /  
Controlled Terms: / CONFERENCE, 8525 / MOTORCYCLE, 1221 /  
PROTOTYPE, 9109 / SAFETY, 1665 / BRAKE, 1361 / ANTI LOCKING DEVICE,  
1360 / SPEEDOMETER, 1348 / LEG (HUMAN), 2023 / PROTECTION, 1670 /  
VISIBILITY, 6783 / FUEL TANK, 1325 / ELECTRONICS, 6965 / HEAD ON  
COLLISION, 1640 / DESIGN (OVERALL DESIGN), 9011 /

4. Voertuig

4.5 Quest Accession Number : 90P10709

830285 I.R.R.D. Publication

A STUDY ON METHODS OF MEASURING FIELDS OF VIEW OF MOTORCYCLE REARVIEW MIRRORS

Source no: 9007TR156E

Author:

MOTOKI,M; JAPAN AUTO RES INST

TSUKISAKA,T; JAPAN AUTO MANF ASSN INC

Publication: ELEVENTH INTERNATIONAL TECHNICAL CONFERENCE ON EXPERIMENTAL SAFETY VEHICLES, WASHINGTON DC, MAY 12-15, 1987

Publisher: US DEPARTMENT OF TRANSPORTATION. NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, 400 7TH STREET SW 20590 WASHINGTON DC USA

Type of Publication: BOOK, Date: 1987, Pagination: 843-58, Reference: 3

Availability of Document:, Code for Centre: TRRL, Code Assigned: SEEB8910639, 1st Form: ORIG, REF ONLY

Language in: ENGLISH

This study involved 26 American motorcycle riders in an effort to establish measurement methods of rearward field of view of motorcycle rearview mirrors. A survey of rear-view mirror aiming, measurements of rider arm contour and computer simulations of rearward field of view were part of the study. The survey of rear-view mirror aiming was carried out by checking the adjustments that the test riders had made on the test motorcycle with fairing mounted rear-view mirrors and on their own motorcycles. The results indicated that, to measure the rearward field of view, the rear-view mirrors should be adjusted at an angle where a light beam travelling from reference eye-point to mirror center was reflected in a horizontal and parallel manner to vehicle center line. Arm contour was measured by taking photographs from the top and the side of the shoulder and arms of riders seated on two types of motorcycle mock-ups. Results showed that arm line was the significant factor in determining rider arm shadow. Computer simulations of rearward field of view was conducted for three types of motorcycles. This resulted in a computer simulation program to examine the rearward field of view of motorcycle rear-view mirrors and measurement methods when using a three-dimensional manikin for motorcycles placed on motorcycle. (A) For the covering abstract of the conference see IRRD 830189

Subject Classification: / VEHICLE DESIGN AND SAFETY, 91 / ACCIDENTS AND THE HUMAN FACTOR, 83 /

Controlled Terms: / CONFERENCE, 8525 / MOTORCYCLE, 1221 / REAR VIEW MIRROR, 1375 / FIELD OF VISION, 6792 / SAFETY, 1665 / MOTORCYCLIST, 1752 / SIMULATION, 9103 / DIGITAL COMPUTER, 8673 / PROGRAM (COMPUTER), 8646 / MEASUREMENT, 6136 / ANTHROPOMETRIC DUMMY, 1618 / EYE, 2066 / JAPAN, 8053 / USA, 8122 / EUROPE, 8034 /

4. Voertuig

4.6 Quest Accession Number : 89P10576

326732 I.R.R.D. Publication

ENTWICKLUNGSSCHWERPUNKTE IN DER MOTORRADTECHNIK

Source no: 8908BA032D

Author:

WITT,P

Publication: KRAFTFAHRZEUGTECHNIK BERLIN DDR, ISSN: 0023-4419

Type of Publication: PERIODIKUM, Date: 1989, Volume: 39, Number: 5

, Pagination: 144-9, Reference: 0

Availability of Document:., Code for Centre: BAST, 1st Form: ORIG,

Z EINSICHT

Language in: DEUTSCH

DIE MOTORRADTECHNIK ZEICHNET SICH DURCH EIN ENORMES ENTWICKLUNGSTEMPO UND EINE UNUEBERSEHBARE MODELLVIELFALT AUS. EINIGE ASPEKTE DER JUENGEREN ENTWICKLUNG WERDEN IN BEZUG AUF DIE ANTRIEBSKONZEPTE, DIE FAHRWERKSKONSTRUKTIONEN SOWIE DIE VERKLEIDUNG VON MOTORRAEDERN VORGESTELLT. VON AUSGEWAELHTEN SERIENMODELLEN AB 125 KUBIKZENTIMETER SIND DEREN TECHNISCHE DATEN UND EINIGE KONSTRUKTIONSKENNWERTE AUFGEFUEHRT. DER WERKSTOFFSEITIGE LEICHTBAU DOMINIERT SOWOHL IM ANTRIEBSBEREICH WIE AUCH DER FAHRWERKSKONSTRUKTION. DIE KONSTRUKTIONEN BEIM FAHRWERK REICHEN VOM BEWAERHTEN ROHRRAHMEN BIS ZUM KASTENPROFILRUECKENRAHMEN. AM RENN- UND SPORTMODELL WIRD ZUNEHMEND DER HYDRAULISCHE DURCH DEN GASDRUCKDAEMPFER ERSETZT. DAS ANTIBLOCKIERSYSTEM ALS WICHTIGES KONSTRUKTIONSELEMENT DER AKTIVEN SICHERHEIT WIRD NUNMEHR AUCH BEIM MOTORRAD EINGESETZT. BEI DER ANTRIEBSENTWICKLUNG GEHT ES WELTWEIT UM MEHR LEISTUNG, HOEHERES DREHMOMENT IM UNTEREN UND MITTLEREN DREHZAHLBEREICH, EINHALTUNG DER GERAEUSSCHGRENZWERTE UND UM KRAFTSTOFFEINSPARUNG. DIE KRAFTUEBERTRAGUNG ERFOLGT UEBER VIER-, FUENF- ODER SECHSGANGGETRIEBE

Subject Classification: / FAHRZEUGKONSTRUKTION, 91 /

Controlled Terms: / MOTORRAD, 1221 / ENTWICKLUNG, 9013 /  
TECHNOLOGIE, 3855 / ANTRIEB (TECH), 3873 / BAU, 3655 / SICHERHEIT,  
1665 / ANTIBLOCKIEREINRICHTUNG, 1360 / FEDERUNG, 1329 /  
AERODYNAMISCHES ZUBEHOER, 1337 / KAROSSERIE, 1356 /  
KRAFTUEBERTRAGUNG (FAHRZEUG), 1333 / MOTOR, 3861 /  
KRAFTSTOFFVERBRAUCH, 0179 /

## 5. Bescherming

5.1 Quest Accession Number : 93P03172

328966 I.R.R.D. Publication

AIRBAG FUER MOTORISIERTE ZWEIRAEDER

Source no: 9301BA046D

Author:

ENGEL, A; TECHNISCHE HOCHSCHULE DARMSTADT (DEU). FACHGEBIET FAHRZEUGTECHNIK

Publication: FORSCHUNGSBERICHTE DES BUNDESMINISTERS FUER VERKEHR, BEREICH FAHRZEUGTECHNIK

Publisher: BUNDESANSTALT FUER STRASSENWESEN, BRUEDERSTR. 53, POSTFACH 10 01 50 D-5060 BERGISCH GLADBACH 1 DEUTSCHLAND BR, ISSN: 0937-1214

Type of Publication: PERIODIKUM, Date: 1992-01, Number: 8, Pagination: VII+130S, Reference: 47

Availability of Document:, Code for Centre: BAST, 1st Form: ORIG, Z EINSICHT

Language in: DEUTSCH , Lang. of summary : ENGLISH/FRANCAIS

Airbag-Systeme koennen, wie fruehere Untersuchungen gezeigt haben, die passive Sicherheit von Motorraedern wirksam verbessern. Der vorliegende Forschungsbericht betrachtet die Uebertragbarkeit von Pkw-Airbag-Konzepten auf das Motorrad und befasst sich vor allem mit dem Problem der motorradgerechten und sicheren Ausloesung des Airbags. Die Funktion des Motorradairbags unterscheidet sich von der des Pkw-Airbags in entscheidender Weise durch die Moeglichkeit, die Flugbahn des Fahrers bei einem Zusammenstoss mit einem rechtwinklig vor dem Motorrad befindlichen Pkw so zu beeinflussen, dass dieser das Hindernis ohne einen harten Anprall ueberfliegen kann. Der Abbau der kinetischen Energie des Fahrers geschieht so nicht in der kurzen Knautschzone vor dem Kollisionsobjekt, sondern in der meist ausreichend langen Auslaufzone dahinter. Der Motorradairbag kann am vorderen Tankbereich angebracht sein. Fuelltechnik und Gewebematerial koennen vom Pkw direkt uebernommen werden; jedoch ist die Nahtfuehrung zu verstaerken, da der Motorradairbag vorwiegend auf Scherung beansprucht wird. Gravierende Unterschiede ergeben sich in der Sensierung eines Crashes, da durch das an der Telegabel gefuehrte Vorderrad signifikante Verzoegerungsanstiege des Motorrades erst sehr spaet erfolgen. Es ist daher nicht moeglich, wie beim Pkw den Airbag allein ueber Beschleunigungsaufnehmer zu zenden. Schwerpunkt des Berichtes sind daher verschiedene Vorschlaege, bei heute ueblichen Motorradkonstruktionen einen Crash fuer eine Airbagausloesung rechtzeitig und sicher sensieren zu koennen. Zu charakteristischen Unfall-Ereignissen werden Sensoren nach verschiedenen Wirkprinzipien geordnet vorgestellt. Nach einer technischen Bewertung erweisen sich zwei Sensorvarianten als geeignet fuer eine zuverlaessige Zuendung des Airbag; gleichzeitig kann mit einer logischen Verknuepfung ihrer Signale eine Fehlaufloesung sicher vermieden werden. Die ausgewaehlten und naeher beschriebenen Sensoren registrieren den Druckanstieg im Vorderradreifen und die plastische Verformung der Telegabel. Damit ist eine Sensierung des Aufpralls rechtzeitig moeglich. Je nach Groesse und Dauer der Verzoegerung kann der Druck des Luftkissens veraendert werden, so dass der Motorradairbag in Abhaengigkeit der Fahrgeschwindigkeit nur aufpralldaempfend oder flugbahnbeeinflussend wirkt. Testprogramme zur weiteren Entwicklung von Airbagsensoren fuer Motorraeder werden als Forschungsbedarf naeher erlaeutert. Bericht zum Projekt 1.8903 der Fahrzeugtechnischen Forschung des Bundesministers fuer Verkehr

Subject Classification: / FAHRZEUGKONSTRUKTION, 91 /

Controlled Terms: / MOTORRAD, 1221 / LUFTSACK, 1386 / ZUSAMMENSTOSS, 1631 / SICHERHEIT, 1665 / ENTWICKLUNG, 9013 / TECHNOLOGIE, 3855 / SCHLAG, 5471 / BETRIEBSVERHALTEN, 9121 /

5. Bescherming

5.2 Quest Accession Number : 92P12953

853589 I.R.R.D. Publication

PASSIVE SAFETY FOR MOTORCYCLISTS - FROM THE LEG PROTECTOR TO THE AIRBAG

Source no: 9212TR708E

Author:

SPONNER,A; HUK-VERBAND, MUNICH

LANGWIEDER,K; HUK-VERBAND, MUNICH

POLAUKE,J; HUK-VERBAND, MUNICH

Publication: RIDER-PASSENGER PROTECTION IN MOTORCYCLE COLLISIONS (SAE SP-827) SAE TECHNICAL PAPER 900756

Publisher: SOCIETY OF AUTOMOTIVE ENGINEERS INC, 400 COMMONWEALTH DRIVE 15096 WARRENDALE PENNSYLVANIA USA, ISBN: 1-56091-057-7

Type of Publication: BOOK, Date: 1990-06, Pagination: 197-206, Reference: 20

Availability of Document: Centre: SOCIETY OF AUTOMOTIVE ENG, 1st Form: ORIG, Code for Centre: TRRL, Code Assigned: SEEB9205658, 1st Form: ORIG, REF ONLY

Language in: ENGLISH

It is extremely difficult to find safety elements for motorized two-wheelers. For this reason it is important to begin by examining the accident sequences and by clearly analysing the main points of injury as well as the way in which the injuries arise. What emerges is a very complex accident sequence in the case of two-wheelers which involves the danger that one safety element optimised with regard to only one problem can result in disadvantages when the overall accident severity is examined. The leg protection as an isolated safety element has to be mentioned in this connection. If it is not properly designed the influence it has on the movement sequence can result in increasing the risk of injury to other parts of the body. A satisfactory solution with an airbag might be a way out of the dilemma. (A) For the covering abstract see IRRD 853578

Subject Classification: / VEHICLE DESIGN AND SAFETY, 91 /

Controlled Terms: / MOTORCYCLE, 1221 / SAFETY, 1665 / DESIGN (OVERALL DESIGN), 9011 / MOTORCYCLIST, 1752 / LEG (HUMAN), 2023 / INJURY, 2163 / PROTECTION, 1670 / FOOT (NOT A MEASURE), 9024 /

5. Bescherming

5.3 Quest Accession Number : 92P12947

853583 I.R.R.D. Publication  
LEG PROTECTION FOR A SPORTS MOTORCYCLE  
Source no: 9212TR702E

Author:

CHINN,BP; TRANSPORT RESEARCH LAB, CROWTHORNE, UK

KARIMI,H; TRANSPORT RESEARCH LAB, CROWTHORNE, UK

Publication: RIDER-PASSENGER PROTECTION IN MOTORCYCLE COLLISIONS  
(SAE SP-827) SAE TECHNICAL PAPER 900748

Publisher: SOCIETY OF AUTOMOTIVE ENGINEERS INC, 400 COMMONWEALTH  
DRIVE 15096 WARRENDALE PENNSYLVANIA USA, ISBN: 1-56091-057-7

Type of Publication: BOOK, Date: 1990-06, Pagination: 63-101,  
Reference: 12

Availability of Document: Centre: SOCIETY OF AUTOMOTIVE ENG, 1st  
Form: ORIG, Code for Centre: TRRL, Code Assigned: SEEB9205658, 1st  
Form: ORIG, REF ONLY

Language in: ENGLISH

The Transport and Road Research Laboratory has previously reported on research which shows that leg protection for motorcyclists can be designed which will be of benefit to the legs without detriment to the head. It has also been shown that the United Kingdom draft specification on leg protection can be successfully applied to a large touring machine. This report describes the application of leg protection to a sports motorcycle Kawasaki GPZ 500S. The purpose of the test series was twofold. First, to show the effect of leg protection, designed and tested to the U.K. draft specification, on the potential leg and head injuries when fitted to a sports motorcycle. The second purpose was to compare the performance of the TRRL injury indicating leg, which is not frangible, with one that is, and to determine whether or not the TRRL leg is an appropriate device with which to assess potential leg injuries and dummy trajectory in motorcycle impact testing. For the covering abstract see IRRD 853578

Subject Classification: / VEHICLE DESIGN AND SAFETY, 91 /  
PERSONAL INJURIES, 84 /

Controlled Terms: / MOTORCYCLE, 1221 / SAFETY, 1665 / DESIGN  
(OVERALL DESIGN), 9011 / INJURY, 2163 / MOTORCYCLIST, 1752 / LEG  
(HUMAN), 2023 / PREVENTION, 1670 /

## 5. Bescherming

### 5.4 Quest Accession Number : 92R04731

704469 I.R.R.D. Research  
BEURTEILUNG DER BEDEUTUNG VON MOTORRADFAHRERSCHUTZKLEIDUNG FUER  
DIE AKTIVE UND PASSIVE SICHERHEIT VON MOTORRADFAHRERN

Source no: 9003BA045D

Investigator:

BREUER, B

SCHMIEDER, M

Research Organization: TECHNISCHE HOCHSCHULE DARMSTADT, FACHGEBIET  
FAHRZEUGTECHNIK (TECHNICAL UNIVERSITY OF DARMSTADT, DEPARTMENT OF  
VEHICLE TECHNOLOGY), PETERSENSTR. 30, Postal Code: D-6100, DARMSTADT  
, DEUTSCHLAND BR

Sponsor: BUNDESANSTALT FUER STRASSENWESEN (FEDERAL HIGHWAY  
RESEARCH INSTITUTE), BRUEDERSTR. 53, POSTFACH 10 01 50, D-5060,  
BERGISCH GLADBACH 1, DEUTSCHLAND BR, Project Code: 8718/2

Project, Start date: 1989-09-01, Actual completion date: 1991-07,  
Status: BEENDET, Date: 1992-03-23

Citation: DIE BEDEUTUNG VON MOTORRADFAHRERSCHUTZKLEIDUNG FUER DIE  
AKTIVE UND PASSIVE SICHERHEIT VON MOTORRADFAHRERN. KURZBERICHT

Authors: BREUER, B

Bibliograph.: 4S, Date: 1991-07

Publisher of Citation: TH DARMSTADT, FACHGEBIET FAHRZEUGTECHNIK

Citation: DIE BEDEUTUNG VON MOTORRADFAHRERSCHUTZKLEIDUNG FUER DIE  
AKTIVE UD PASSIVE SICHERHEIT VON MOTORRADFAHRERN

Authors: SCHMIEDER, M

Bibliograph.: 245:68S, Date: 1991-12

Publisher of Citation: FORSCHUNGSBER BAST

IRRD number: 328501

Citation: DIE BEDEUTUNG VON MOTORRADFAHRERSCHUTZKLEIDUNG FUER DIE  
AKTIVE UND PASSIVE SICHERHEIT VON MOTORRADFAHRERN

Authors: SCHMIEDER, M

Bibliograph.: 70S, Date: 1991-04

Publisher of Citation: TH DARMSTADT, FACHGEBIET FAHRZEUGTECHNIK

Motorradfahrer sind im Strassenverkehr besonders gefaehrdet, nahezu kein Unfall endet ohne Verletzungen der Motorradaufsassen. Wenn ein Unfall unabwendbar ist (das Unfallgeschehen der Motorraeder zeigt seit Jahren stetige Besserungen), verbleibt dem Fahrer als Schutz nur seine eigene Bekleidung. Der im Rahmen dieses Projektes angestellte Vergleich verschiedener Feldstudien zeigt, dass hauptsaechlich die Extremitaeten mit Schwerpunkt bei den Beinen verletzt werden. Aehnlich wie hohe Helmtragequoten zum Rueckgang der Kopfverletzungen gefuehrt haben, koennte zweckdienliche Schutzkleidung nahezu vollstaendig Hautabschuerfungen und damit verbunden Wundinfektionen vermeiden. Gleichzeitig werden die Schwellwerte fuer den Eintritt anderer Verletzungen (zum Beispiel Brueche, Baenderrisse, innere Verletzungen) zu hoeheren Kollisionsgeschwindigkeiten verschoben. Die im Projektverlauf erarbeiteten Anforderungen an Motorradfahrerschutzbekleidung sind so spezifisch und vielfaeltig, dass sie mit keiner anderen, zum Beispiel berufsspezifischen Kleidung vergleichbar sind. Mit Analysen wurde gezeigt, dass einige Anforderungen nur unter Zielkonflikten mit anderen verwirklichtbar sind. Die dadurch noetige Mehrfachfunktion mancher Bauteile fuehrt dazu, dass die Pruefung von Eigenschaften kaum mit den Methoden aus ueblichen Normwerken durchgefuehrt werden kann. Vor diesem Hintergrund begann die Entwicklung speziell angepasster Versuche. In der Regel bilden sich realistisch die Belastungen bei einem Sturz auf die Fahrbahnoberflaeche und in der anschliessenden Rutschphase nach. Durch die Verlegung der Versuche in das Labor wird die Reproduzierbarkeit erhoehrt, die Kosten bleiben vergleichsweise gering. Als wichtigste Pruefkriterien wurden Abriebverhalten, Reibwaermeisolation, Reibwert, Stosddaempfung, Widerstand gegen Stich- und Schnittbeschaedigung, Formschluss und Bauteilsteifigkeit erarbeitet. Vorgestellt und bewertet wurden verschiedene bereits existierende Pruefverfahren. Wenn sie ungeeignet schienen oder wenn fuer ein wichtiges Kriterium kein Verfahren zu finden war, wurden



eigene neue Vorschlaege gemacht. Unter Abwaegung von Pruefaufwand und Aussagekraft der Ereignisse wurde ein Vorschlag fuer ein normungsfahiges Pruefverfahren erarbeitet. Im Vorschlag beruecksichtigt sind nur bereits existierende oder einfach verwirklichtbare Pruefverfahren, die fuer Motorradfahrerschutzbekleidung als geeignet angesehen werden

Subject Classification: / UNFALL UND MENSCH, 83 /  
Controlled Terms: / SICHERHEIT, 1665 / MOTORRADFAHRER, 1752 /  
KLEIDUNG, 1688 / VERFAHREN, 9102 / VERSUCH, 6255 / NORM (TECH), 0139  
/ FORSCHUNGSARBEIT, 8557 /

5. Bescherming

5.5 Quest Accession Number : 90P10708

830284 I.R.R.D. Publication

DEVELOPMENT OF A SAFETY CONCEPT FOR MOTORCYCLES - RESULTS FROM ACCIDENT ANALYSIS AND CRASH TESTS

Source no: 9007TR155E

Author:

SPORNER, A; HUK-VERBAND, WEST GERMANY

LONGWIEDER, K; HUK-VERBAND, WEST GERMANY

POLAUKE, J; HUK-VERBAND, WEST GERMANY

Publication: ELEVENTH INTERNATIONAL TECHNICAL CONFERENCE ON EXPERIMENTAL SAFETY VEHICLES, WASHINGTON DC, MAY 12-15, 1987

Publisher: US DEPARTMENT OF TRANSPORTATION. NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, 400 7TH STREET SW 20590 WASHINGTON DC USA

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Availability of Document: , Code for Centre: TRRL, Code Assigned: SEEB8910639, 1st Form: ORIG, REF ONLY

Language in: ENGLISH

The high proportion of seriously injured persons and fatalities in traffic accidents involving motorcycles makes it clear that the protection of the motorcyclist is still not satisfactory. Since the middle of the Seventies it has therefore been an objective of accident research to reduce the injury risk of the motorcycle driver. By way of introduction, a survey is given of the current studies in Germany and abroad for improving motorcycle safety and of the different concepts. The accident analyses, crash tests and mathematical simulations, carried out by the HUK-Verband, showed that the most important objective in reducing the severity of injuries is the optimization of the path of movement of a motorcyclist involved in an accident. Findings with regard to single vehicle accidents and with regard to the different collision types, if a motorcycle collides with another vehicle, are presented. It can be seen that in both the accident in which no other vehicle was involved and in the different motorcycle/car-collision types, the reduced accident severity of the motorcyclist resulted from the controlled separation from his machine. This can be influenced by constructive measures, such as, for example, knee-pads, optimized tank and handle-bar designs, additional construction elements and possibly by an airbag in front of the motorcyclist. Proposals for such safety designs are presented and their possible effects are estimated and discussed. On the basis of these scientific results questions relating to the practical application are dealt with. (A) For the covering abstract of the conference see IRRD 830189

Subject Classification: / PERSONAL INJURIES, 84 / VEHICLE DESIGN AND SAFETY, 91 /

Controlled Terms: / CONFERENCE, 8525 / ACCIDENT, 1643 / MOTORCYCLIST, 1752 / IMPROVEMENT, 9108 / SAFETY, 1665 / INJURY, 2163 / SEVERITY (ACCID, INJURY), 1623 / GERMANY, FEDERAL REPUBLIC OF, 8125 / IMPACT TEST (VEH), 1648 / MATHEMATICAL MODEL, 6473 / FATALITY, 1602 /

5. Bescherming

5.6 Quest Accession Number : 89P06447

326492 I.R.R.D. Publication

PASSIVE SICHERHEIT FUER ZWEIRADFAHRER. REFERATE DES 2. BOCHUMER  
WORKSHOPS FUER ZWEIRADSICHERHEIT

Source no: 8904BA042D

Author:

KOCH,H(ED)

Publication: FORSCHUNGSHEFTE ZWEIRADSICHERHEIT

Publisher: INSTITUT FUER ZWEIRADSICHERHEIT E.V. D-4630 BOCHUM  
DEUTSCHLAND BR, ISSN: 0175-2626

Type of Publication: PERIODIKUM, Date: 1987, Number: 5,

Pagination: XII+207S, Reference:

Availability of Document:., Code for Centre: BAST, 1st Form: ORIG,  
Z EINSICHT

Language in: DEUTSCH , Lang. of summary : ENGLISH

DAS BUCH ENTHAELT EINEN DIFFERENZIIERTEN UEBERBLICK DES AKTUELLEN  
STANDES DER WISSENSCHAFTLICHEN ERKENNTNISSE UEBER MOEGlichkeiten UND  
GRENZEN DES PASSIVEN UNFALLSCHUTZES FUER MOTORISIERTE ZWEIRADFAHRER.  
IN EINEM EINLEITENDEN UEBERBLICKSREFERAT WIRD AUF LOESUNGSANSAETZE  
ZUR VERBESSERUNG DER VERLETZUNGSSITUATION DES MOTORISIERTEN  
ZWEIRADBENUTZERS EINGEGANGEN. IM KAPITEL "SCHUTZBEKLEIDUNG" BEFASST  
MAN SICH MIT DER WEITERENTWICKLUNG VON MOTORRADFAHRERSCHUTZKLEIDUNG,  
DER SCHUTZWIRKUNG EINES BESONDERS ENTWICKELTEN ANZUGS FUER  
MOTORRADFAHRER, DEM TRAGVERHALTEN VON SCHUTZKLEIDUNG. IM KAPITEL  
"SCHUTZHELME" WERDEN OPTIMIERUNGSFRAGEN SOWIE ANFORDERUNGEN AN  
KUNFTIGE ENTWICKLUNGEN AUS DER SICHT DER UNFALLFORSCHUNG BEHANDELT.  
DAS KAPITEL "STRASSE" SPRICHT VOR ALLEM DAS SCHUTZPLANKENPROBLEM AN.  
DABEI WIRD AUF ANPRALLVERSUCHE MIT DUMMIES SOWIE AUF DIE PASSIVE  
SICHERHEIT VON SCHUTZPLANKEN EINGEGANGEN. ZUM SCHLUSS WIRD DIE  
PASSIVE SICHERHEIT BEIM MOTORRAD, INSBESONDERE DIE BEURTEILUNG VON  
AIRBAGS UNTERSUCHT

Subject Classification: / UNFALL UND STRASSE, 82 / UNFALL UND  
MENSCH, 83 / FAHRZEUGKONSTRUKTION, 91 /

Controlled Terms: / MOTORRADFAHRER, 1752 / SCHUTZHELM, 1687 /  
KLEIDUNG, 1688 / SCHUTZPLANKE, 1686 / SICHERHEIT, 1665 /  
VERBESSERUNG, 9108 / OPTIMUM, 9056 / LUFTSACK, 1386 / VERSUCHSPUPPE,  
1618 / PASSIVES SICHERHEITSSYSTEM, 1387 / ANPRALLDAEMPFER (TROMMEL),  
1697 /

5. Bescherming

5.7 Quest Accession Number : 89P00761

812313 I.R.R.D. Publication  
INFLUENCE OF MOTORCYCLE CONSTRUCTION ON KINEMATICS OF MOTORCYCLE  
AND PASSENGER CAR COLLISION  
EINFLUSS DER MOTORRADKONSTRUKTION AUF DIE KINEMATIK DER  
MOTORRAD/PERSONENWAGEN-KOLLISION

Source no: 8711RC024E

Author:

GRANDEL, J; DEUTSCHER KRAFTFAHRZEUG- UEBERWACHUNGS-VEREIN,  
STUTTGART, BR DEUTSCHLAND

Publication: XXI FISITA CONGRESS, BELGRADE, 2-6 JUNE, 1986.  
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Publisher: YUGOSLAV SOCIETY OF AUTOMOTIVE ENGINEERS, 27 MARTA 80  
11000 BEOGRAD SERBIA YUGOSLAVIA

Type of Publication: BOOK, Date: UNDATED, Pagination: 271-8,  
Reference: 5

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REF ONLY, 2nd Form: COPY, Code for Centre: TRRL, Code Assigned:  
SEEB8803602, 1st Form: ORIG, REF ONLY

Language in: DEUTSCH , Lang. of summary : FRANCAIS/DEUTSCH

EXPERIMENTAL STUDIES OF ACCIDENT SIMULATION OF THE MOTION OF  
MOTORCYCLES, DUMMIES AND PASSENGER CARS INVOLVED IN ACCIDENTS AT  
INTERSECTIONS AND IN TWO-WAY TRAFFIC ACCIDENTS SHOW THE INFLUENCE OF  
THE MOTORCYCLE CONSTRUCTION ON THE KINEMATICS OF MOTORCYCLE AND  
PASSENGER CAR COLLISIONS. ESPECIALLY THE ANALYSIS OF HIGH-SPEED  
MOTION FILMS SHOWS THE DIFFERENCES IN MOTION OF A MOTORCYCLE AND A  
DUMMY WHEN CRASHING AGAINST PARKED OR MOVING CARS. FROM THE POINT OF  
VIEW OF ACCIDENT ANALYSIS, THE ELEMENTS OF THE MOTORCYCLE  
CONSTRUCTION LIKE SEAT HEIGHT, TRANSMISSION, FUEL TANK, FORK AND  
FRONT WHEELS ARE TESTED BY STUDYING THE REACTION OF THE DUMMY. THE  
AIM OF THE TESTING IS TO INTRODUCE POSSIBLE CHANGES IN THE  
CONSTRUCTION OF MOTORCYCLES, WHICH WOULD IMPROVE THE MOTORCYCLIST'S  
SAFETY. FOR THE COVERING ABSTRACT OF THE CONFERENCE SEE IRRD 809110

Subject Classification: / VEHICLE DESIGN AND SAFETY, 91 /  
PERSONAL INJURIES, 84 /

Controlled Terms: / MOTORCYCLE, 1221 / CAR, 1243 / CONFERENCE,  
8525 / COLLISION, 1631 / ACCIDENT, 1643 / SIMULATION, 9103 /  
MOVEMENT, 5483 / ANTHROPOMETRIC DUMMY, 1618 / JUNCTION, 0455 /  
MOTORCYCLIST, 1752 / CINEMATOGRAPHY, 6752 / IMPACT TEST (VEH), 1648  
/ DRIVING (VEH), 1760 / PARKING, 0955 / EQUIPMENT, 3674 / SEAT (VEH)  
, 1388 / COMFORT, 1379 / TRANSMISSION (VEH), 1333 / WHEEL, 1372 /  
IMPROVEMENT, 9108 / SAFETY, 1665 /

5. Bescherming

5.8 Quest Accession Number : 88P11639

325989 I.R.R.D. Publication

MEHR UNFALLSCHUTZ FUER MOTORRADFAHRER - NEUE VERSUCHSERGEBNISSE

Source no: 8809BA039D

Author:

Publication: POLIZEI VERKEHR TECHNIK LUEBECK DEUTSCHLAND BR

Type of Publication: PERIODIKUM, Date: 1988, Volume: 33, Number: 5  
, Pagination: 145-6, Reference: 0

Availability of Document:, Code for Centre: BAST, 1st Form: ORIG,  
Z EINSICHT

Language in: DEUTSCH

DIE PASSIVE SICHERHEIT BEIM PKW IST STAENDIG VERBESSERT WORDEN, NICHT JEDOCH DIE VON MOTORRAEDERN. UNTERSUCHT WIRD, INWIEWEIT SICH DIE PASSIVE SICHERHEIT VON MOTORRAEDERN EBENFALLS VERBESSERN LAESST. DAZU WURDEN CRASHTESTS DURCHGEFUEHRT, AUF DEREN ERKENNTNISSE KURZ EINGEGANGEN WIRD. BESONDERS HERVORGEHOBEN WIRD DER AIRBAG IN VERBINDUNG MIT DEM BEINSCHUTZ (PRALLPOLSTER). DER AIRBAG BEWIRKT, DASS DER MOTORRADFAHRER IN DER REGEL UEBER DAS HINDERNIS HINWEGGLEITET ODER ZUMINDEST DER RUPPRALL GEMILDERT WIRD. EINE EMPFEHLUNG ZIELT DARAUF AB, IM GEFAHRENFALL VOLL ZU BREMSEN UND, SOFERN EINE SEITLICHE KOLLISION NICHT VERMEIDBAR IST, MOEGLICHST ZUM HECK DES FAHRZEUGS AUSZUWEICHEN. DIE GEMACHTEN UNTERSUCHUNGEN MIT DEN TESTS TRUGEN AUCH ZUR ABSICHERUNG VON ZWEI NEUEN PARAMETERN BEI DER REKONSTRUKTION VON MOTORRADUNFAELLEN BEI, NAEMLICH DER ERMITTLUNG DER KINETISCHEN ANSTOSSENERGIE UND DER KOLLISIONSGESCHWINDIGKEIT DES PKW

Subject Classification: / UNFALLFORSCHUNG, 80 /  
FAHRZEUGKONSTRUKTION, 91 /

Controlled Terms: / UNFALLREKONSTRUKTION, 1621 / MOTORRAD, 1221 /  
PKW, 1243 / MOTORRADFAHRER, 1752 / ZUSAMMENSTOSS, 1631 /  
UNFALLSCHWERE, 1623 / VERLETZUNG, 2163 / SICHERHEIT, 1665 /  
VERBESSERUNG, 9108 / VERHUETUNG, 1670 / LUFTSACK, 1386 /  
ANFAHRVERSUCH, 1648 / BREMSUNG, 1370 / FAHRZEUGFUEHRUNG, 1760 /

5. Bescherming

5.9 Quest Accession Number : 88P11612

325962 I.R.R.D. Publication

UNFALLSIMULATION MIT MOTORRAEDERN UND PERSONENKRAFTWAGEN

Source no: 8809BA012D

Author:

BERG,FA

Publication: AUTOMOBILTECHNISCHE ZEITSCHRIFT STUTTGART DEUTSCHLAND  
BR, ISSN: 0001-2785

Type of Publication: PERIODIKUM, Date: 1988, Volume: 90, Number: 5  
, Pagination: 269-70, Reference: 8

Availability of Document:, Code for Centre: BAST, 1st Form: ORIG,  
Z EINSICHT

Language in: DEUTSCH

ZUR DETAILLIERTEN ANALYSE VON BEWEGUNGSABLAEFEN UND AUFPRALLEREIGNISSEN BEI MOTORRAD - PKW - UNFAELLEN UND ZUR VERBESSERUNG DER PASSIVEN SICHERHEIT VON MOTORRAEDERN WURDEN REALUNFALLSIMULATIONEN DURCHGEFUEHRT. NEBEN DER ERWEITERUNG UND ABSICHERUNG VON ERKENNTNISSEN FUER DIE UNFALLREKONSTRUKTION WAREN ANALYSEN DER SCHUTZWIRKUNG EINES SPEZIELLEN MOTORRAD-AIRBAGS IN VERBINDUNG MIT BEINAUFPRALLPOLSTERN HAUPTUNTERSUCHUNGSZIEL. DIE ERKENNTNISSE WERDEN DERZEIT IN EINER AUSFUEHRLICHEN VERSUCHSDOKUMENTATION DARGESTELLT, DIE ZUKUENFTIG ALS NACHSCHLAGEWERK BEI DER REKONSTRUKTION VON VERKEHRUNFAELLEN DER PRAKTIKER WERTVOLLE HINWEISE GIBT. DAS VOR EINIGEN JAHREN VORGESTELLTE KONZEPT EINES SICHERHEITSMOTORRADES MIT BEINSCHUTZ, TOURENLENKER, OPTIMIERTEN TANK- UND SITZFORMEN, GLEITFLAECHEN UND SEITLICHEN SCHUTZBUEGELN IST MIT DEM AIRBAG WESENTLICH VERBESSERT WORDEN

Subject Classification: / UNFALLFORSCHUNG, 80 /  
FAHRZEUGKONSTRUKTION, 91 /

Controlled Terms: / MOTORRAD, 1221 / PKW, 1243 / MOTORRADFAHRER,  
1752 / LUFTSACK, 1386 / ZUSAMMENSTOSS, 1631 / UNFALLREKONSTRUKTION,  
1621 / UNFALLSCHWERE, 1623 / VERLETZUNG, 2163 / SICHERHEIT, 1665 /  
VERBESSERUNG, 9108 / VERHUETUNG, 1670 /

## 5. Bescherming

5.10 Quest Accession Number : 88P10556

325923 I.R.R.D. Publication

KOLLISIONSDYNAMIK BEI EXPERIMENTELLEN SIMULATIONEN RECHTWINKLIGER  
MOTORRADANSTOESSE GEGEN DIE SEITE BEWEGTER PERSONENWAGEN

Source no: 8808BA023D

Author:

LINDENMANN,M; WINTERTHUR SCHWEIZERISCHE VERSICHERUNGSGESELLSCHAFT,  
T, WINTERTHUR (SUISSE)

GRANDEL,J

BERG,FA; DEKRA, STUTTGART (DEU). HAUPTABTEILUNG UNFALLFORSCHUNG

Publication: VERKEHR SUNFALL UND FAHRZEUGTECHNIK KIPPENHEIM  
DEUTSCHLAND BR, ISSN: 0724-2050

Type of Publication: PERIODIKUM, Date: 1988, Volume: 26, Number: 3  
, Pagnation: 75-80, Reference: 5

Availability of Document:, Code for Centre: BAST, 1st Form: ORIG,  
Z EINSICHT

Language in: DEUTSCH , Lang. of summary : ENGLISH

UNFALLSIMULATIONEN MIT RECHTWINKLIGEM ANSTOSS VON MOTORRAEDERN  
GEGEN DIE SEITE BEWEGTER PERSONENWAGEN WURDEN IN ZUSAMMENARBEIT DES  
DEKRA MIT DEN WINTERTHUR-VERSICHERUNGEN DURCHGEFUEHRT UND  
AUSGEWERTET. IM GEGENSATZ ZU MOTORRADANSTOESSEN GEGEN STEHENDE  
PERSONENWAGEN ZEIGTEN DIE VERSUCHE MIT ANSTOESSEN GEGEN BEWEGTE  
PERSONENWAGEN EINE VIELFALT VON KOLLISIONSABLAEFEN, WELCHE DEM  
REALEN UNFALLGESCHEHEN ENTSpricht. UM DIES UMFASSEND DARZUSTELLEN,  
IST FUER JEDEN EINZELFALL DIE DRAUFSICHT AUF ANSTOSSKONSTELLATIONEN,  
ENDPOSITIONEN UND SCHWERPUNKTBAHNEN UND ZUR WEITEREN  
VERANSCHAULICHUNG DER RAEUMLICHEN KOMPLEXITAET FUER EINIGE FAEELLE DIE  
IN STANDBILDSEQUENZEN DOKUMENTIERTE SEITENANSICHT DER KOLLISIONEN  
GEWAEHLT WORDEN. BEI MANUELLEN FILMAUSWERTUNGEN ERFASSTE  
BEWEGUNGSBAHNEN, GESCHWINDIGKEITEN UND ANPRALLEREIGNISSE GEBEN IM  
ZUSAMMENHANG MIT DEN ENTSTANDENEN FAHRZEUGBESCHAEDIGUNGEN WICHTIGE  
HINWEISE ZUR KOLLISIONSDYNAMIK. (A\*)

Subject Classification: / UNFALLFORSCHUNG, 80 /

Controlled Terms: / ZUSAMMENSTOSS, 1631 / SIMULATION, 9103 / PKW,  
1243 / MOTORRAD, 1221 / VERSUCH, 6255 / SICHERHEIT, 1665 /  
SCHUTZHELM, 1687 / IN BEWEGUNG, 9050 / SACHSCHADEN, 1614 / UNFALL,  
1643 / UNFALLREKONSTRUKTION, 1621 /

5. Bescherming

5.11 Quest Accession Number : 88P09640

325851 I.R.R.D. Publication

UNTERSUCHUNG DER MOTORRAD-, FAHRER- UND BEIFAHRERSICHERHEIT BEI  
MOTORRADUNFAELLEN MIT ZWEI MOTORRADAUFSSASSEN - TEILE 1 UND 2

Source no: 8807BA001D

Author:

GRANDEL, J

SCHAPER, D

BERG, FA

Publication: AUTOMOBILTECHNISCHE ZEITSCHRIFT STUTTGART DEUTSCHLAND  
BR, ISSN: 0001-2785

Type of Publication: PERIODIKUM, Date: 1987, Volume: 89, Number:  
11&12, Pagination: 631-8&693-6, Reference: 0

Availability of Document:., Code for Centre: BAST, 1st Form: ORIG,  
Z EINSICHT

Language in: DEUTSCH , Lang. of summary : ENGLISH

UNTERSUCHUNGEN VON MOTORRADUNFAELLEN, BEI DENEN DAS MOTORRAD  
AUSSER MIT DEM FAHRER AUCH MIT EINEM SOZIUS BESETZT IST, SIND BISHER  
NICHT BEKANNT. QUALITATIVE BEOBACHTUNGEN DES UNFALLGESCHEHENS ZEIGEN  
JEDOCH, DASS DIESER UNFALLTYP WEGEN DER GEGENSEITIGEN BEEINFLUSSUNG  
DER MOTORRADAUFSSASSEN UNTERSCHIEDE ZUM UNFALLABLAUF MIT EINEM NUR  
MIT DEM FAHRER BESETZTEN MOTORRAD AUFWEIST. AUSGEHEND VON EINER  
EXPERIMENTELLEN UNFALLSIMULATION WERDEN DIE WESENTLICHEN  
UNTERSCHIEDE IM BEWEGUNGS- UND AUFPRALLVERHALTEN SOWIE IN DER KOPF-  
UND KOERPERHALTUNG ZWISCHEN SOLO- UND SOZIUSBESETZUNG BESCHRIEBEN.  
DARAUS ABGELEITET WERDEN SICHERHEITSTECHNISCHE UEBERLEGUNGEN ZU  
KONSTRUKTIVEN MASSNAHMEN AM MOTORRAD, UM DIE BEWEGUNGSBAHNEN DER  
AUFSSASSEN ZU OPTIMIEREN. FUER DIE SICHERHEIT VON PERSONENKRAFTWAGEN  
UND DEREN INSASSEN BEIM AUFPRALL VON MOTORRAEDERN WIRD DIE STRUKTUR  
DES SEITENVERBUNDES UND DESSEN FESTIGKEIT EROERTERT. IM ZWEITEN TEIL  
DES BERICHTS WERDEN DIE BEWEGUNGSBETRACHTUNG FUER ZWEI  
45-GRAD-ANSTOESSE ANALYSIERT SOWIE ERKENNTNISSE ZUR REKONSTRUKTION  
VON MOTORRAD-PERSONENKRAFTWAGEN-UNFAELLEN BESCHRIEBEN

Subject Classification: / UNFALLFORSCHUNG, 80 /

Controlled Terms: / MOTORRADFAHRER, 1752 / UNFALL, 1643 /  
UNFALLREKONSTRUKTION, 1621 / UNFALLVERHUETUNG, 1661 / SIMULATION,  
9103 / ANFAHRVERSUCH, 1648 / SCHLAG, 5471 / PKW, 1243 / SICHERHEIT,  
1665 / SEITLICHER ZUSAMMENSTOSS, 1630 /

Uncontrolled Terms: / MOTORRADAUFSSASSE /



5. Bescherming

5.12 Quest Accession Number : 88P04251

325604 I.R.R.D. Publication

DIE HELM- UND SCHUTZKLEIDUNGSTRAGEQUOTEN MOTORISIERTER  
ZWEIRADFÄHRER IM INNERORTSBEREICH - ERGEBNISSE DER ERHEBUNG VOM MAI  
1986

Source no: 8801BA004D

Author:

MEYER, L; BUNDESANSTALT FÜR STRASSENWESEN, BERGISCH GLADBACH (DEU)

Publisher: BUNDESANSTALT FÜR STRASSENWESEN, BRÜEDERSTR. 53,  
POSTFACH 10 01 50 D-5060 BERGISCH GLADBACH 1 DEUTSCHLAND BR

Type of Publication: REPORT, Date: 1986-11, Pagination: 11s,  
Reference: 0

Availability of Document:, Code for Centre: BAST, 1st Form: ORIG,  
Z EINSICHT

Language in: DEUTSCH

NACH EINFÜHRUNG DER SCHUTZHELMTRAGEPFLICHT FÜR MOPFÄHRER AM 1.  
OKTOBER 1985 STIEG IHRE HELMTRAGEQUOTE VON 22 PROZENT IM SEPTEMBER  
1985 AUF 96 PROZENT IM MAI 1986. AUCH DIE MOKICK- UND MOPEDFÄHRER  
HABEN MIT 98 BZW. 99 PROZENT IM MAI 1986 BISHER NICHT GEKANNT  
TRAGEQUOTEN ERZIELT. DA DIE KRAFTRAD-, KRAFTROLLER-, LEICHT- UND  
KLEINKRAFTRADFÄHRER AUSNAHMSLOS DEN HELM TRUGEN, ERGAB SICH EINE  
DURCHSCHNITTSGRÄDE VON 99 PROZENT, EIN PROZENTSATZ, WIE ER ZUVOR NIE  
ERREICHT WURDE. BEI DEN MITFÄHRERN AUF LEICHTKRAFTRÄDERN WURDE IM  
MAI 1986 ZUM ERSTEN MALE EINE HELMTRAGEQUOTE VON 100 PROZENT  
ERZIELT. DEN GLEICHEN PROZENTSATZ ERREICHTEN ZUM WIEDERHOLTEN MALE  
DIE KRAFTRADMIFÄHRER. BEIDE FÄHRZEUGARTEN BEFÖRDERN ÜBER 80  
PROZENT DER MOTORISIERTEN ZWEIRADMIFÄHRER. IN BEZUG AUF DIE  
SCHUTZKLEIDUNG STIEG DIE ZAHL DER BENUTZER VON "HELM UND KOMPLETTER  
ÜBRIGER SCHUTZKLEIDUNG" BEI DEN KRAFTRADFÄHRERN IM MAI 1986 AUF EIN  
KNAPPES DRITTEL GEGENÜBER EINEM VIERTEL IN 1985. ALLE ÜBRIGEN  
FÄHRER TRUGEN KOMPLETTE SCHUTZKLEIDUNG SO GUT WIE GAR NICHT. SIE  
WURDEN HAUPTSÄCHLICH NUR MIT HELM UND OHNE JEDE WEITERE  
SCHUTZKLEIDUNG ANGETROFFEN UND ZWAR AUF LEICHTKRAFTRÄDERN ZU EINEM  
GUTEN DRITTEL, AUF MOKICKS ZU ZWEI DRITTELN UND AUF MOPAS IN DREI  
VIERTEL ALLER FÄLLE. DER VERGLEICHSWERT DER KRAFTRADFÄHRER HIERZU:  
WENIGER ALS 10 PROZENT. BEI DEN MITFÄHRERN VON KRAFTRÄDERN STIEG  
DER ANTEIL DER TRÄGER VON HELM UND KOMPLETTER ÜBRIGER  
SCHUTZKLEIDUNG IM MAI 1986 AUF EIN KNAPPES VIERTEL. EIN WEITERES  
VIERTEL TRUG NUR EINEN HELM OHNE JEDE WEITERE SCHUTZKLEIDUNG. BEI  
DEN MITFÄHRERN AUF LEICHTKRAFTRÄDERN WAR DIESER ANTEIL DREIMAL SO  
HOCH. (A)

Subject Classification: / UNFALL UND MENSCH, 83 /

Controlled Terms: / SICHERHEIT, 1665 / SCHUTZHELM, 1687 /  
KLEIDUNG, 1688 / MOTORRADFÄHRER, 1752 / STATISTIK, 6555 / BEWERTUNG,  
9020 / VERHALTEN, 9001 /

5. Bescherming

5.13 Quest Accession Number : 88R01049

630250 I.R.R.D. Research

MOTORCYCLE CONDITION AND RIDER'S CLOTHES

MOOTTORIPYORIEN KUNTO JA AJAJIEN VARUSTEET

Source no: 8606TT038E

Investigator:

KOIVUROVA,M; LT

FORSTEN,L; LT

Research Organization: LIIKENNETURVA (CENTRAL ORGANIZATION FOR TRAFFIC SAFETY), SITRATIE 7, Postal Code: SF-00420, HELSINKI, FINLAND

Project, Start date: 1985-01, Actual completion date: 1988, Status: COMPLETED, Date: 1988-06

IRF No: 5(85)

MOTORCYCLE EQUIPMENT HAS BEEN INVESTIGATED BY CONDUCTING SHORT INTERVIEWS WITH THE RIDERS. AT THE SAME TIME THE CLOTHES OF THE DRIVER AND PASSENGERS HAVE BEEN CHECKED

Subject Classification: / TRAFFIC AND TRANSPORT PLANNING, 72 /  
Controlled Terms: / MOTORCYCLE, 1221 / MOTORCYCLIST, 1752 /  
CLOTHING, 1688 / TRAFFIC, 0655 / RESEARCH REPORT, 8559 / SAFETY,  
1665 / EVALUATION (ASSESSMENT), 9020 /

6. Zichtbaarheid

6.1 Quest Accession Number : 92P12948

853584 I.R.R.D. Publication

RESEARCH INTO MOTORCYCLE CONSPICUITY AND ITS IMPLEMENTATION

Source no: 9212TR703E

Author:

DONNE, GL; TRANSPORT RESEARCH LAB, CROWTHORNE, UK

Publication: RIDER-PASSENGER PROTECTION IN MOTORCYCLE COLLISIONS  
(SAE SP-827) SAE TECHNICAL PAPER 900749

Publisher: SOCIETY OF AUTOMOTIVE ENGINEERS INC, 400 COMMONWEALTH  
DRIVE 15096 WARRENDALE PENNSYLVANIA USA, ISBN: 1-56091-057-7

Type of Publication: BOOK, Date: 1990-06, Pagination: 103-18,  
Reference: 12

Availability of Document: Centre: SOCIETY OF AUTOMOTIVE ENG, 1st  
Form: ORIG, Code for Centre: TRRL, Code Assigned: SEEB9205658, 1st  
Form: ORIG, REF ONLY

Language in: ENGLISH

Studies have shown that a large proportion of motorcycle accidents involve the failure of a road-user to see an approaching motorcycle. It is estimated that in Britain about one third of all collisions between motorcycles and other vehicles involve a visual or perceptual difficulty. Similar findings exist in other countries. The majority of such accidents occur in daylight but perceptual difficulties are also a prominent feature of night time collisions. This paper describes a series of trials designed to assess measures which might alleviate these problems by modifying the appearance of motorcycles. The use of existing and additional lighting and fluorescent materials, intended to assist the detectability and identification of motorcycles in traffic, was examined in both daylight and darkness. The results demonstrated ways of increasing the conspicuity of motorcycles in a wide range of daylight situations, but they also showed that some widely-used measures are not effective. At night, detectability was found to depend on the intensity and beam-pattern of the motorcycle's front lighting, but identification was aided by lighting used in addition to the standard headlamp. (A) For the covering abstract see IRRD 853578

Subject Classification: / VEHICLE DESIGN AND SAFETY, 91 /

Controlled Terms: / MOTORCYCLE, 1221 / CONSPICUITY, 6783 /  
ACCIDENT PREVENTION, 1661 / VISION, 2066 / COLOUR, 6784 / CLOTHING,  
1688 / FLUORESCENCE, 6785 / DAYLIGHT, 9008 / NIGHT, 9052 /  
EFFICIENCY, 5911 / LIGHTING (STREET), 0545 / HEADLAMP, 1342 /

6. Zichtbaarheid

6.2 Quest Accession Number : 92F04492

843080 I.R.R.D. Publication

FIRST REPORT UPON THE INQUIRY INTO MOTORCYCLE SAFETY IN VICTORIA:  
MOTORCYCLE VISIBILITY

Source no: 9204AR427E

Author:

VICTORIA. PARLIAMENT. SOCIAL DEVELOPMENT COMMITTEE

Publisher: VICTORIAN STATE GOVERNMENT PRINTER, MACAULAY ROAD 3051  
NORTH MELBOURNE VICTORIA AUSTRALIA, ISBN: 0-7306-2692-X

Type of Publication: REPORT, Date: 1992-03, Pagination: XII + 180P  
, Reference:

Availability of Document: Centre: VICTORIAN GOVERNMENT PRINTER,  
1st Form: ORIG, REF ONLY

Language in: ENGLISH

The Committee recommends that: 1. The Minister for Transport implement road safety measures to increase motorcycle conspicuity by: a) Encouraging motorcycle riders to use yellow, white, red and fluorescent colours for their motorcycles and their clothes; b) Recommending to the Federal Government that daytime running light specifications include a minimum intensity of 1 600cd, a minimum size of 180mm diameter and a requirement for two lights; and c) Encouraging measures which increase the frontal or overall size of motorcycles. 2. VicRoads and the Transport Accident Commission, in consultation with the Victorian motorcycling community, plan on-going public education programmes which encourage motorcycle riders to use appropriate conspicuity measures. 3. VicRoads and the Transport Accident Commission, in consultation with the motorcycling community and motoring organisations such as the Royal Automobile Club of Victoria, develop on-going public education programmes which encourage car drivers to be aware of motorcycles. 4. The Minister for Transport advise the Federal Government of the possible dangers inherent in specifying daytime running lights for motorcycles be hard-wired, and request they delay implementation of Australian Design Rule 19/01 until the report of the International Committee on Daytime Running Lights is available and its implications for Australia are examined. 5. The Minister for Transport advise the Federal Government that the light specifications included in Australian Design Rule 19/01 are inappropriate for Australian conditions. 6. The Minister for Transport amend the Road Safety (Vehicles) Regulations 1988 to exclude Australian Design Rule 19/01 from roadworthiness requirements for motorcycles registered in Victoria. 7. The use of daytime running lights for motorcycles remains voluntary

Subject Classification: / ACCIDENTS AND THE HUMAN FACTOR, 83 /  
VEHICLE DESIGN AND SAFETY, 91 /

Controlled Terms: / MOTORCYCLE, 1221 / VEHICLE, 1255 / ROAD  
SAFETY, 1665 / VISIBILITY, 6783 / ENFORCEMENT (LAW), 1534 /  
AUSTRALIA, 8006 / DAYLIGHT, 9008 / LEGISLATION, 1556 / ACCIDENT  
PREVENTION, 1661 / COLOUR, 6784 / CLOTHING, 1688 / DESIGN (OVERALL  
DESIGN), 9011 / DIMENSION, 9014 / HEADLAMP, 1342 /

6. Zichtbaarheid

6.3 Quest Accession Number : 90P10719

830295 I.R.R.D. Publication

SAFETY CONSIDERATIONS OF MOTORCYCLE LIGHTING AT NIGHT

Source no: 9007TR166E

Author:

DONNE, GL; TRRL, UK

FULTON, EJ; LOUGHBOROUGH TECH UNIV, UK

Publication: ELEVENTH INTERNATIONAL TECHNICAL CONFERENCE ON EXPERIMENTAL SAFETY VEHICLES, WASHINGTON DC, MAY 12-15, 1987

Publisher: US DEPARTMENT OF TRANSPORTATION. NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, 400 7TH STREET SW 20590 WASHINGTON DC USA

Type of Publication: BOOK, Date: 1987, Pagination: 916-21, Reference: 7

Availability of Document:, Code for Centre: TRRL, Code Assigned: SEEB8910639, 1st Form: ORIG, REF ONLY

Language in: ENGLISH

Studies have shown that a large proportion of motorcycle accidents involve another road user's failure to see an approaching motorcycle. At night some of these accidents are associated with the misinterpretation of the visual cues given by motorcycles. These problems might be alleviated by the use of appropriate lighting displayed at the front of the motorcycle. Experiments have been conducted in darkness to discover what type of lighting-arrangements assist road users to see and make correct judgments about motorcycles in traffic conditions. Results showed that the detectability of motorcycles is related to the intensity and beam-pattern of the headlamp. Lighting which helped to define the form of the motorcycle, used in addition to the headlamp, aided identification in traffic. Although the use of daytime running lamps, in various forms, was found to be of no benefit at night it should not be inferred that specifications for improving lighting for day and night use are necessarily incompatible. (A) For the covering abstract of the conference see IRRD 830189

Subject Classification: / VEHICLE DESIGN AND SAFETY, 91 /

Controlled Terms: / CONFERENCE, 8525 / MOTORCYCLE, 1221 / SAFETY, 1665 / HEADLAMP, 1342 / NIGHT, 9052 / VISIBILITY, 6783 / DIPPED HEADLIGHT, 1340 / REFLECTORIZED MATERIAL, 0531 /

6. Zichtbaarheid

6.4 Quest Accession Number : 90P10716

830292 I.R.R.D. Publication  
IMPROVEMENT OF CONSPICUITY OF MOTORCYCLE DRIVERS BY PASSIVE  
MATERIALS

Source no: 9007TR163E

Author:

SCHMIDT-CLAUSEN, H-J; DARMSTADT TECH UNIV, WEST GERMANY

Publication: ELEVENTH INTERNATIONAL TECHNICAL CONFERENCE ON  
EXPERIMENTAL SAFETY VEHICLES, WASHINGTON DC, MAY 12-15, 1987

Publisher: US DEPARTMENT OF TRANSPORTATION. NATIONAL HIGHWAY  
TRAFFIC SAFETY ADMINISTRATION, 400 7TH STREET SW 20590 WASHINGTON DC  
USA

Type of Publication: BOOK, Date: 1987, Pagination: 900-2,  
Reference: 0

Availability of Document:, Code for Centre: TRRL, Code Assigned:  
SEEB8910639, 1st Form: ORIG, REF ONLY

Language in: ENGLISH

Based on the measurements of the contrast of motorcycle drivers against the background, different features like protective clothing with retroreflective materials were investigated. Out of these partly dynamic tests improvements of the marking of motorcycle drivers are developed. Proposals of an optimal marking is derived from these experiments. (A) For the covering abstract of the conference see IRRD 830189

Subject Classification: / VEHICLE DESIGN AND SAFETY, 91 /  
Controlled Terms: / CONFERENCE, 8525 / MOTORCYCLIST, 1752 /  
REFLECTORIZED MATERIAL, 0531 / ACCIDENT PREVENTION, 1661 / LUMINANCE  
, 0525 /

6. Zichtbaarheid

6.5 Quest Accession Number : 90P05270

831744 I.R.R.D. Publication

MOTORCYCLE CONSPICUITY: AN EVALUATION AND SYNTHESIS OF INFLUENTIAL FACTORS

Source no: 9002TB113E

Author:

WULF, G

HANCOCK, PA

RAHIMI, M

Publication: JOURNAL OF SAFETY RESEARCH ELMSFORD NEW YORK USA, ISSN: 0022-4456

Type of Publication: SERIAL, Date: 1989-01-01, Volume: 20, Number: 4, Pagination: 153-176, Reference:

Availability of Document: Centre: PERGAMON PRESS, INCORPORATED

Language in: ENGLISH

THE DEATH RATE FOR MOTORCYCLE RIDERS OF ABOUT 35 PER 100,000 MILES OF TRAVEL COMPARES VERY UNFAVORABLY WITH AN OVERALL VEHICLE DEATH RATE OF 2.57 PER 100,000,000 MILES. NUMEROUS STUDIES HAVE MANIPULATED MOTORCYCLE AND MOTORCYCLIST CHARACTERISTICS TO ENHANCE CONSPICUITY. THIS PAPER REVIEWS STUDIES THAT EXAMINED THE EFFECTIVENESS OF THESE MEASURES. THE METHODS USED TO EVALUATE THE EFFECTIVENESS OF CONSPICUITY TREATMENTS IS STUDIED. FACTORS YET TO BE CONSIDERED IN THE IMPERICAL RESEARCH IN THIS AREA THAT MAY CONTRIBUTE TO COLLISIONS WITH MOTORCYCLES ARE CONSIDERED. THESE INCLUDE INFORMATION-PROCESSING FAILURES AT THE IDENTIFICATION AND DECISION STAGE, AS WELL AS MORE OR LESS PERMANENT FACTORS POTENTIALLY RESPONSIBLE FOR DIFFERENT INFORMATION-PROCESSING FAILURES. TRANSIENT FACTORS RELATED TO THE FAILURE TO DETECT MOTORCYCLES MIGHT INCLUDE ALCOHOL, FATIGUE, INATTENTION, AND INFORMATION OVERLOAD, WHEREAS MORE PERMANENT FACTORS MIGHT INCLUDE 'COGNITIVE' CONSPICUITY AND FIELD DEPENDENCE

Subject Classification: / ACCIDENT STUDIES, 80 /

Controlled Terms: / MOTORCYCLE, 1221 / FATALITY, 1602 / ACCIDENT, 1643 / EFFICIENCY, 5911 / DRIVER, 1772 / FATIGUE (HUMAN), 2222 / LIGHTING (STREET), 0545 / ACCIDENT PREVENTION, 1661 /

6. Zichtbaarheid

6.6 Quest Accession Number : 88P14360

817368 I.R.R.D. Publication

MOTORCYCLE LIGHTING: DESIGN FOR SAFETY

Source no: 8812TR155E

Author:

DONNE, GL; TRRL

FULTON, EJ; LOUGHBOROUGH UNIV TECH

STROUD, PG; LOUGHBOROUGH UNIV TECH

Publication: INTERNATIONAL JOURNAL OF VEHICLE DESIGN

Publisher: INDERSCIENCE ENTERPRISES LTD, WORLD TRADE CENTER BUILDING, 110 AVENUE LOUIS CASAI, CASE POSTALE 306 CH 1215 GENEVA-AEROPORT SUISSE, ISSN: 0143-3369

Type of Publication: SERIAL, Date: 1988, Volume: 9, Number: 4/5, Pagination: 489-98, Reference: 14

Availability of Document: , Code for Centre: TRRL, 1st Form: ORIG, REF ONLY

Centre: BLDSC

Language in: ENGLISH

STUDIES HAVE SHOWN THAT A LARGE PROPORTION OF MOTORCYCLE ACCIDENTS, BOTH IN DAYLIGHT AND AT NIGHT, INVOLVE ANOTHER DRIVER'S FAILURE TO SEE AN APPROACHING MOTORCYCLE. AT NIGHT THERE ARE ALSO ACCIDENTS ASSOCIATED WITH MISINTERPRETATION OF THE VISUAL CUES GIVEN BY MOTORCYCLES. THESE PROBLEMS MIGHT BE ALLEVIATED BY THE USE OF APPROPRIATE LIGHTING DISPLAYED AT THE FRONT OF THE MOTORCYCLE. EXPERIMENTS WERE CARRIED OUT, BOTH IN DAYLIGHT AND DARKNESS, TO DISCOVER WHAT TYPES OF LIGHTING ARRANGEMENTS BEST ASSIST OTHER DRIVERS TO SEE AND MAKE CORRECT JUDGEMENTS ABOUT MOTORCYCLES IN URBAN TRAFFIC CONDITIONS. RESULTS SHOWED THAT, IN DAYLIGHT, USE OF A LARGE HEADLIGHT OR PAIRS OF DAYTIME RUNNING LAMPS CAN EFFECTIVELY IMPROVE THE CONSPICUITY OF MOTORCYCLES. AT NIGHT A LARGE HEADLAMP IS ALSO BENEFICIAL. THE USE OF DAYTIME RUNNING LAMPS IN ADDITION TO THE HEADLAMP DOES NOT HAVE ADVANTAGES AT NIGHT. IMPROVEMENTS IN THE IDENTIFICATION OF MOTORCYCLES IN OTHER TRAFFIC AT NIGHT WERE ACHIEVED BY USING ILLUMINATED FAIRINGS OR VERTICAL STRIP LIGHTS IN ADDITION TO THE HEADLAMP. SPECIFICATION FOR BETTER LIGHTING FOR DAY AND NIGHT-TIME USE ARE NOT NECESSARILY INCOMPATIBLE. (A)

Subject Classification: / VEHICLE DESIGN AND SAFETY, 91 /

Controlled Terms: / MOTORCYCLE, 1221 / HEADLIGHT, 1342 / REAR LIGHT, 1331 / VISIBILITY, 6783 / IMPROVEMENT, 9108 / ACCIDENT PREVENTION, 1661 / LUMINANCE, 0525 / DAYLIGHT, 9008 / NIGHT, 9052 / PERFORMANCE, 5910 / EVALUATION (ASSESSMENT), 9020 /



6. Zichtbaarheid

6.7 Quest Accession Number : 88P13367

816842 I.R.R.D. Publication

A COMPARISON OF SOME DAYLIGHT MOTORCYCLE VISIBILITY TREATMENTS

Source no: 8810VT007E

Author:

DAHLSTEDT,S; FIRMA HUMANTEKNOLOGI

Publication: VTI RAPP

Publisher: STATENS VAEG- OCH TRAFIKINSTITUT S-58101 LINKOEPING  
SWEDEN, ISSN: 0347-6030

Type of Publication: REPORT, Date: 1986, Number: 302A, Pagination:  
40P, Reference:

Availability of Document:, Code for Centre: TRRL, Code Assigned:  
P8612005, 1st Form: ORIG, REF ONLY, Code for Centre: VTI, Code  
Assigned: P00654:302A, 1st Form: ORIG, REF ONLY

Language in: ENGLISH

AFTER A REVIEW OF THE LITERATURE CONCERNING MOTORCYCLE VISIBILITY AND SAFETY AND ALSO THE EFFECTS OF VISIBILITY ENHANCING DEVICES, IT SEEMED THAT MUCH OF THE LITERATURE WAS INCONCLUSIVE AND CONTRADICTORY. TO GET A BETTER BASIS FOR BOTH THE SHORT- AND LONG-TERM WORK ON INCREASED MOTORCYCLE SAFETY, THE SWEDISH ROAD SAFETY OFFICE THEREFORE COMMISSIONED A SYSTEMATIC STUDY OF MOTORCYCLE VISIBILITY. THE STUDY WAS CARRIED OUT AS AN ESTIMATION EXPERIMENT IN AN OUTDOOR SITUATION DURING SUMMERLIKE DAYLIGHT CONDITIONS. THE FACTORS TREATED IN THE STUDY WERE OF FOUR DIFFERENT KINDS: STEADY LIGHT, MODULATED LIGHT, MOTORCYCLE SIZE AND COLOUR AND COLOUR OF THE RIDER. IN ALL, MORE THAN A HUNDRED CONDITIONS WERE STUDIED. THE RESULTS GIVE AN OVERVIEW OF ADVANTAGES, AS WELL AS DISADVANTAGES, OF A WIDE RANGE OF VISIBILITY DEVICES FOR MOTORCYCLES. (A)

Subject Classification: / VEHICLE DESIGN AND SAFETY, 91 /

Controlled Terms: / MOTORCYCLE, 1221 / VISIBILITY, 6783 / SAFETY,  
1665 / DAYLIGHT, 9008 / HEADLAMP, 1342 / SIDE LIGHT, 1331 /  
DIMENSION, 9014 / COLOUR, 6784 / DRIVER, 1772 / CLOTHING, 1688 /  
SWEDEN, 8109 /

6. Zichtbaarheid

6.8 Quest Accession Number : 88P10445

809032 I.R.R.D. Publication

MOTORCYCLE CONSPICUITY: ATTITUDINAL ISSUES

Source no: 8808AR245E

Author:

RAVINDER,S; TRAFFIC AUTHORITY OF NEW SOUTH WALES

Publication: 14TH ARRB CONFERENCE, 28 AUGUST - 2 SEPTEMBER, 1988, CANBERRA, AUSTRALIAN CAPITAL TERRITORY; PROCEEDINGS

Publisher: AUSTRALIAN ROAD RESEARCH BOARD, 500 BURWOOD HIGHWAY 3133 VERMONT SOUTH VICTORIA AUSTRALIA, Price: 240\$A, ISSN: 0572-1431

Type of Publication: BOOK, Date: 1988, Volume: 14, Number: 4, Pagination: 158-70, Reference: 20

Availability of Document: Centre: BLLD, Code for Centre: ARRB, 1st Form: ORIG, REF ONLY, 2nd Form: COPY, GRATIS

Language in: ENGLISH

THE 1986 MOTORCYCLIST TOLL INDICATED A NEED TO CRITICALLY EXAMINE THE ISSUE OF MOTORCYCLE CONSPICUITY SINCE MOTORCYCLISTS NOT USING HEADLAMPS DURING DAYTIME WERE NEARLY THREE TIMES OVER INVOLVED IN FATALITIES. IN ORDER TO HAVE A BETTER UNDERSTANDING OF THE TARGET GROUP'S ATTITUDES, KNOWLEDGE AND BEHAVIOUR IN REGARD TO CONSPICUITY, THE TRAFFIC AUTHORITY COMMISSIONED FACE TO FACE INTERVIEWS WITH 496 MOTORCYCLISTS IN THE SYDNEY METROPOLITAN AREA. THE FINDINGS GENERALLY REVEALED THAT THE OVERWHELMING MAJORITY OF MOTORCYCLE RIDERS BELIEVED THAT IT WAS IMPORTANT TO ENSURE THAT THE MOTORCYCLIST IS VISIBLE TO OTHER ROAD USERS. FURTHERMORE, THERE WAS CONGRUENCE BETWEEN REPORTED BEHAVIOUR AND ACTUAL BEHAVIOUR (AS EVIDENCED BY OBSERVATIONAL SURVEYS) IN REGARD TO DAYTIME HEADLIGHT USE. THE ATTITUDINAL DATA ALSO INDICATED THAT LESS THAN HALF OF THE MOTORCYCLISTS IN THE SURVEY BELIEVED IN THE SAFETY VALUE OF HIGH VISIBILITY CLOTHING. THE SURVEY RESULTS, AS WELL AS A REVIEW OF RESEARCH IN THE AREA REVEALED THE FOLLOWING: (I) THERE IS AN INCREASING TREND TOWARDS SAFETY CONSCIOUSNESS AMONGST MOTORCYCLISTS; (II) A PUBLICITY/ EDUCATIONAL CAMPAIGN TO PROMOTE CONSPICUITY HAS THE POTENTIAL TO BE EFFECTIVE AS THE MAJORITY OF MOTORCYCLISTS ARE FAVOURABLY DISPOSED TOWARD IT; AND (III) IN THE LONGER TERM LEGISLATION TO ENFORCE DAYTIME HEADLAMP USE SHOULD BE SERIOUSLY CONSIDERED (A). FOR THE COVERING RECORD OF THE CONFERENCE, SEE IRRD NO 808936

Subject Classification: / ACCIDENTS AND THE HUMAN FACTOR, 83 / VEHICLE DESIGN AND SAFETY, 91 /

Controlled Terms: / MOTORCYCLE, 1221 / MOTORCYCLIST, 1752 / VISIBILITY, 6783 / INTERVIEW, 0107 / ATTITUDE (PSYCHOL), 2267 / MALE, 1787 / SAFETY, 1665 / HEADLAMP, 1342 / USE, 9084 / DAYLIGHT, 9008 / PUBLICITY, 1692 / EDUCATION, 1682 / CLOTHING, 1688 / LEGISLATION, 1556 / AUSTRALIA, 8006 / CONFERENCE, 8525 /

6. Zichtbaarheid

6.9 Quest Accession Number : 88P09173

812490 I.R.R.D. Publication

TWO IMPORTANT TRENDS IN MOTORCYCLE SAFETY REGULATIONS: RIDER EDUCATION AND CONSPICUITY IMPROVEMENT

Source no: 8806TR021E

Author:

WINN, GL; AMERICAN HISTORIC RACING MOTORCYCLE ASSOCIATION

Publication: SAE TECHNICAL PAPER 870604 (P-193 ACCIDENT RECONSTRUCTION: AUTOMOBILES, TRACTOR-SEMITRAILERS, MOTORCYCLES AND PEDESTRIANS)

Publisher: SOCIETY OF AUTOMOTIVE ENGINEERS INC, 400 COMMONWEALTH DRIVE 15096 WARRENDALE PENNSYLVANIA USA, ISBN: 0-89883-454-6

Type of Publication: REPORT, Date: 1987-02, Pagination: 147-52, Reference: 7

Availability of Document: Centre: SOCIETY OF AUTOMOTIVE ENGINEERS, 1st Form: ORIG, Code for Centre: TRRL, Code Assigned: SEEP8711180, 1st Form: ORIG, REF ONLY

Language in: ENGLISH

SCIENTIFIC INQUIRY INTO THE CAUSES OF MOTORCYCLE ACCIDENTS POINTS TO TWO SIGNIFICANT FEATURES, NAMELY INEXPERIENCE BY THE MOTORCYCLE OPERATOR AND THE DIFFICULTY OF DETECTING MOTORCYCLES AND THEIR SPEED IN ONCOMING TRAFFIC. TWO RECENT TRENDS IN MOTORCYCLE SAFETY HAVE EVOLVED IN THE PAST DECADE WHICH PROMISE TO EASE THE RISING FATALITY AND ACCIDENT RATES. FIRST, WHILE AUTOMOBILE DRIVER TRAINING HAS BEEN AVAILABLE FOR YEARS, ONLY RECENTLY HAS A STANDARD MOTORCYCLE CURRICULUM BEEN DEVELOPED, RECENTLY BEING SET IN PLACE AND FUNDED BY LEGISLATIVE BILLS IN TWENTY-THREE STATES. SECOND, IN AN EFFORT TO PROVIDE IN-TRAFFIC CONSPICUITY FOR MOTORCYCLE OPERATORS, THE NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION RECENTLY DECIDED TO AMEND ITS FEDERAL MOTOR VEHICLE SAFETY STANDARDS TO ALLOW "HIGH TECHNOLOGY" HEADLIGHTS, NOTABLY ONES WHICH MODULATE LIGHT INTENSITY. THIS PAPER TRACKS THE HISTORY, DEVELOPMENT, AND SCIENTIFIC SUPPORT FOR MOTORCYCLE EDUCATION LEGISLATION AND IMPROVED IN-TRAFFIC CONSPICUITY. (A) FOR THE COVERING ABSTRACT SEE IRRD 812475

Subject Classification: / VEHICLE DESIGN AND SAFETY, 91 / ACCIDENTS AND THE HUMAN FACTOR, 83 /

Controlled Terms: / MOTORCYCLE, 1221 / MOTORCYCLIST, 1752 / ACCIDENT, 1643 / CAUSE, 9003 / DRIVER TRAINING, 1571 / EDUCATION, 1682 / PREVENTION, 1670 / HEADLAMP, 1342 / ACCIDENT PREVENTION, 1661 / DEVELOPMENT, 9013 /