



TRIBOLOGY

TRIBOLOGY

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I MECH E

150th Anniversary

1847 - 1997

News and information from the Tribology Group Committee

Issue 5, November 1997

World Tribology Congress

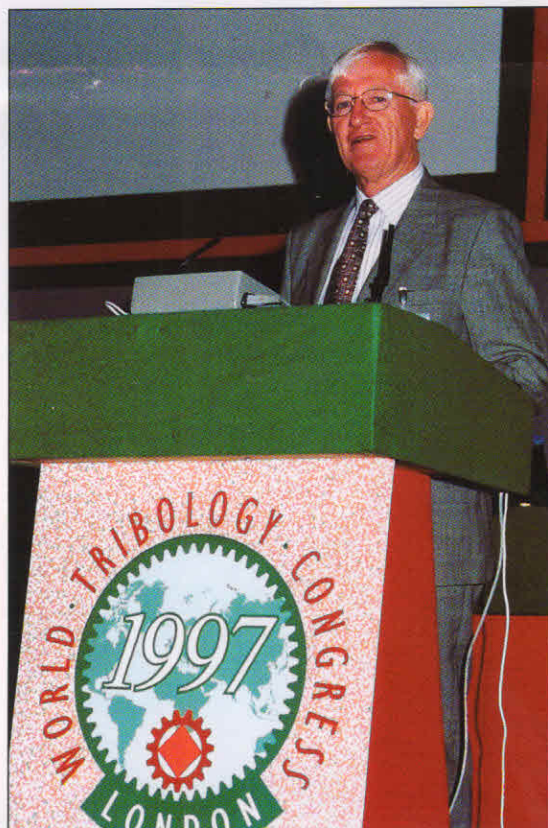
8th-12th September 1997

The World Tribology Congress was the most important event in the activities of the Tribology community in this century.

It enjoyed the Patronage of HRH Prince Philip, Duke of Edinburgh and many national societies modified their own programmes to provide a stronger focus to the Congress.

Sessions were held in the Westminster Central Hall, (where the Seminal General Discussion on Lubrication and Wear was held 60 years previously). Some parallel sessions were held in the nearby IMechE building.

Dr W. H. Roberts, chairman of the organising committee opening the Congress. >



Congress statistics ...

- 1100 participants, 75% from outside the UK.
- 52 Countries represented
- 5 parallel oral sessions each day, Monday to Friday.
- Over 400 papers presented.
- A total of 456 poster displays changed daily
- Highly successful exhibition.
- Congress Banquet in Grosvenor House Hotel, Park Lane.
- 5 Plenary lectures.

On other pages:

- ITC Council in Session
- Future Events
- Tribology Group Committee – Future Plans
- ITC President receives STLE Highest Award

Editor's Note:

Welcome to the 5th issue of Tribology Update. It is devoted almost entirely to providing a pictorial record of the World Tribology Congress – a special souvenir issue which is extended to 8 pages. I hope you enjoy reading it.

My thanks are extended to all who have contributed to the production of this issue. In particular I thank both the professional and 'non-professional' camera men who provided the huge number of photographs from which a selection is included in this issue.

D. W. Parkins

Registration



The organising committee, photographed on the steps of 1 Birdcage Walk, met to finalise details on the Sunday morning. Pictured are: Mr Stephen Maw; Prof Chris Taylor; Prof Hugh Spikes; Prof Brian Briscoe; Mr Julian Reed; Dr Brian Roylance; Mr Bob Wood; Mr David Carnell; Dr David Yardley; Dr Alex Alliston-Greiner; Dr David Parkins; Dr Les Hampson; Dr Ian Hutchings; Dr Bill Roberts and Dr Peter Jost.



Almost all activities were held in Westminster Central Hall – as was the predecessor in 1937.



◀ Busy scenes at the early registration on Sunday in the IMechE Building foyer. Fiona Bangs and Maria Pedler amongst many of their staff are seen dealing with a large number of early registrations ...

... equally busy scenes in the foyer of Westminster Central Hall.



Opening Plenary Sessions



Dr H. Peter Jost addressing delegates during the opening ceremony. He stressed that the Congress had three principal objectives: – a presentation of the latest state in research and development; an opportunity for tribologists from all over the world to meet; to emphasise the economic and competitiveness aspects of tribology. Dr Jost also announced that the 1997 Tribology Gold Medal had been awarded to Prof Bo Jacobson. A full citation will appear in the next issue.



Conference logo projected above the main platform.



Dr Ian Hutchings introducing Prof Duncan Dowson.



Emeritus Prof Duncan Dowson giving the opening plenary address. He considered progress in tribology from an historical perspective.

Poster Sessions



Mr Fred Martin, (back to camera), explains his poster to Dr Chris March.



Long-standing colleagues Sir Gordon Higginson and Emeritus Professor Duncan Dowson.



Prizes were given for the best poster of the day. This picture shows Mr Jim Hewitt, director general of British Gear Association, presenting the prize to Dr M-T Ma (jointly with Prof C. M. Taylor) for the award on Monday.



Mr Grzegorz Celichowski explaining his poster.



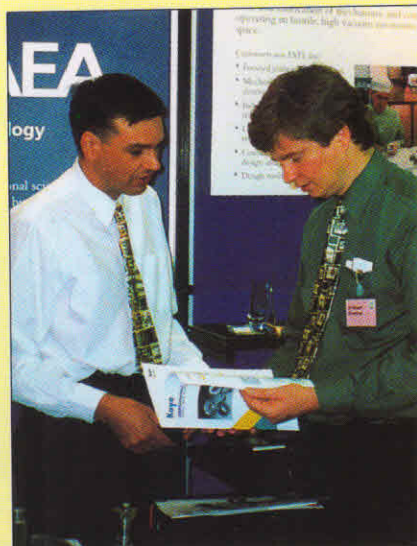
Dr Andres Soom (left), discussing a poster display with Dr Tadeusz Lubinski.



Dr Douglas Hargreaves giving an amusing account of his poster to Dr David Parkins.



Mr David Carnell showing NSK-RHP's curvaceous exhibition stand.



Dr Rob Rowntree explaining the ESTL exhibition.



Staff at STLE enjoy a friendly chat with visitors to their exhibition stand.



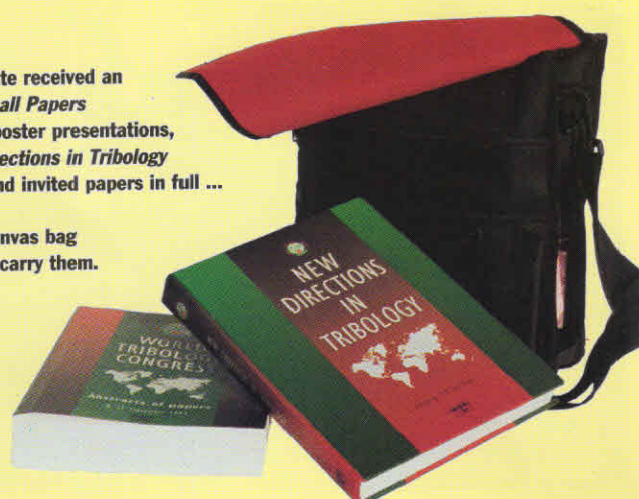
Drs Tony Landsdown and Denis Summers-Smith at the AEA display.

Exhibitor list

AEA Technology plc
 AMPEP plc
 ASME
 Baltzer Science Publishers
 Balzers AG, Wear Protection
 Center for Tribology Inc
 CSEM
 Ducom
 Elsevier Science Ltd
 ESDU International plc
 Falex Corporation
 Finnish Society of Tribology
 Institute of Terotechnology
 Institute of Materials
 Institution of Mechanical Engineers
 Itech
 Kingsbury Inc
 Koyo (UK) Ltd
 KS Paul Products Ltd
 Mohawk Innovative Technology Inc
 Nano Instruments Inc
 National Physical Laboratory
 Neste Oy Base Oils
 NSK-RHP European Technology Centre
 Pall Industrial Hydraulics
 PCS Instruments
 Plint & Partners Ltd
 Prosim Ltd
 Savant Group
 STLE

Each delegate received an
Abstract of all Papers
 – oral and poster presentations,
 the *New Directions in Tribology*
 – plenary and invited papers in full ...

... plus a canvas bag
 in which to carry them.



Congress Banquet at the Grosvenor House Hotel



Mike Neale and Ward Winer enjoying pre-dinner drinks



Professor Bo Jacobson, (winner of the 1997 Tribology Gold Medal) with Prof Alistair Cameron



Pam Liversidge, President of IMechE, presents a commemorative plaque to Prof Harmen Blok. Dr Jost and Prof Blok's son look on.



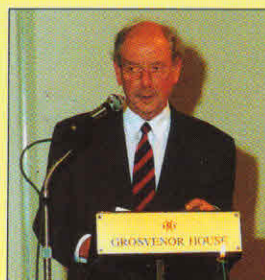
Some of the NSK-RHP band who played in the entrance foyer of the Grosvenor House Hotel.



Prof Harmen Blok was presented with a plaque to commemorate his attendance at WTC '97 and its predecessor in 1937.



Dr H Peter Jost was presented with a new STLE award. A full citation will appear in the next issue



Sir Gordon Higginson giving the after dinner speech.



Pam Liversidge, President of IMechE addressing delegates.



A view showing the top table and some of the 1100 dinner guests.

Poster session winners

Prizes were given for the best poster(s) for each of the days, Monday to Thursday.

Monday:

A Comparative Thermal Analysis of the Static Performance of Different Bore Plain Bearings

– M-T Ma, University of Central Lancashire and C M Taylor, University of Leeds.

This award was sponsored by the British Gear Association.

Tuesday:

The Effect of Processing Route, Carbide Size Distribution and Hardness on the Wear Response of a Chromium Bearing Steel in Dry Sliding Wear

– M Ramadan, Sirte Oil Company, Libya; D N Hanlon and W M Rainforth, the University of Sheffield.

Prediction of Serviceability of Standard Mating Parts

– V Lozovskii, M Iampolskii, G Shelikhov, Science and Technology Center, Russia.

This award was sponsored by Koyo Seiko Co Ltd.

Wednesday:

In-Situ Formation of Tribologically Effective Oxide Interfaces in SiC-Based Tribocouples During Dry Sliding

– R Wäsche and D Klaffke, Federal Institute of Materials Research and Testing (BAM), Germany.

This award was sponsored by JAST.

Thursday:

Friction and Tribochemistry Between Diamond Surfaces in Sliding Contact

– J A Harrison, M D Perry and S J Stuart, US Naval Academy, USA.

Surface Roughness Analysis After High Speed Hybrid Ball Bearing Testing

– J Ampuero, U Müller, D Delfosse, Swiss Federal Laboratories for Materials Testing and Research; P Pahud, I Mallabiarrena and O Goepfert, Swiss Federal Institute of Technology and H Boving, Centre Suisse d'Electronique et de Microtechnique SA, Switzerland.

Investigation of Surface Generation and Rolling Resistance Properties of Steel in Dry and Lubricated Rolling Contacts

– D-E Kim and K H Cha, Yonsei University, Korea.

This award was sponsored by Koyo Seiko Co Ltd and the Société Tribologique de France.

WORLD TRIBOLOGY CONGRESS SPONSORS

The organising committee would like to thank the following sponsors:

NSK-RHP



CLIMAX
MOLYBDENUM COMPANY



AEA Technology plc



British Gear Association (BGA)

Fuchs Petrolub AG Oel + Chemie

Howmedica

Japanese Society of Tribologists

Koyo Seiko Co Ltd



National Bodies associated with the Congress

Egyptian Society of Tribology

Finnish Society for Tribology

Gesellschaft für Tribologie

Institute of Materials

Institute of Physics Tribology Group

Institution of Chemical Engineers

Italian Tribology Group of AIMETA

Japanese Society of Tribologists

Japan Society of Mechanical

Engineers

Leeds-Lyon Symposium

Lithuanian Scientific Society

'Tribologija'

NORDTRIB

Polish Tribological Society

Romanian Tribology Association

Royal Society of Chemistry

Russian Association of Tribology

Engineers

Russian National Tribology Committee

Scientific Society of mechanical

Engineers

Sectie Tribologie BvMK

Slovak Society of Tribology

Slovenian Society of Tribology

Société Tribologique de France

Society of Chemical Industry

Society of Tribologists and Lubrication

Engineers

Society of Bulgarian Tribologists

Society of Tribologists of Belarus

South African Institute of Tribology

Tribology Division of the American

Society of Mechanical Engineers

Tribology Institution of the Chinese

Mechanical Engineering Society

Tribology Society of India

Tribology Society of Nigeria

Ukrainian National Tribology Society

Wear of Materials

Yugoslav Tribology Society

Many of these associated bodies are

members of the International Tribology

Council, which as given its full support to the Congress.

... NEWS IN BRIEF ... NEWS IN BRIEF ...

ITC Council in Session

A meeting of the ITC Council took place on the evening of Sunday 7th September 1997. A full report will appear in the next issue.

Sadly:

Prof Wallace Hurst died on 27th June 1997. A full obituary will appear in the next issue.

Congratulations to:

Prof Jack Schofield who received the Donald Julian Groen prize.

Dr Chris Hocke, Birmingham University who has been awarded the 1997 Silver medal.

Dr C D Elcoate, University of Wales, Cardiff, who has been awarded the 1997 Bronze Medal.

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Society of Tribologists and Lubrication

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Society of Tribologists of Belarus

South African Institute of Tribology

Tribology Division of the American

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Future Events

Life does continue after the Congress. Here are details of some forthcoming events ...

December 1-3, 1997

Tribology of Information

Storage Devices

The Rutherford Conference Centre,
London.

Contact: Fiona Maule.

The Institute of Physics,
76 Portland Place, London W1N 4AA

Tel: +44 (0)171 470 4800

Fax: +44 (0)171 470 4900

E-mail: fiona.maule@iop.org

http://www.iop.org

December 2-5, 1997

International Conference on Industrial Tribology

Calcutta, India.

Contact: V. N. Sharma,
Tribology Society of India,
c/o Balmer Lawrie & Co Ltd
Fax: +91 33 479 2277

December 4, 1997

Mission of Tribology Research - 6

IMechE HQ, 1 Birdcage Walk,
London SW1H 9JJ.

Contact: Caroline Childs,
Tel: 0171 304 6829

December 8-10, 1997

International Symposium on Fuels and Lubricants

Faridabad, India.

Contact: Dr S. P. Srivastava, Organising
Secretary, Indian Oil Corporation Ltd,
Research and Development Centre, Sector
13, Faridabad, 121007, India.
Tel: +91 129 292 017
Fax: +91 129 287 263

January 13-15, 1998

11th International Colloquium on Industrial and Automotive Lubrication

Stuttgart, Ostfildern, Germany.

Contact: Technische Akademie Esslingen,
Anmeldung, Postfach 1265, D-73748

Ostfildern, Germany.

Tel: 711 340 0823

Fax: 711 340 0827

April 14, 1998

Rolling Bearing Engineering Today

IMechE HQ, 1 Birdcage Walk,
London SW1H 9JJ.

Contact: Caroline Childs, IMechE,
London.

Tel: 0171 304 6829

May 15, 1998

Rolling Bearing Engineering Today

IMechE HQ, 1 Birdcage Walk,
London SW1H 9JJ.

Contact: Caroline Childs

Tel: 0171 304 6829

May 17-21, 1998

STLE Annual Meeting and Expo

Detroit, Michigan.

Contact: STLE, 840 Busse Highway,
Park Ridge, IL 60068-2376, USA.

Tel: 847 825 5536

Fax: 847 825 1456

July 7-9, 1998

World Congress on Particle Technology 3

Brighton, UK.

Contact: Miss Jennie Black, I.Chem.E.,
165-189 Railway Terrace,
Rugby CV21 3HQ
Tel: +44 (0) 1788 578214
Fax: +44 (0) 1788 577182

September 16-18, 1998

Insyconf '98 Energy and Environmental Aspects of Tribology

Cracow, Poland.

Contact: Prof Stamslaw Pytko,
Insyconf '98, Akademia Gorniczo-

Hatmcza, Al. Mickiewicza, 30, 30-059,
Cracow, Poland

Tel: +48 12 173065

Fax: +48 12 339103

E-mail: s_pytko@uci.agh.edu.pl

December 6-9, 1998

Austrub '98

Brisbane, Australia.

Contact: Austrub '98, Secretariat,
Tribology Research Group, School of
Mechanical, Manufacturing and Medical
Engineering, Q.U.T, GPO Box 2434,
Brisbane 4001, Australia.

December 14-16, 1998

Aviation Turbine Oils

Technische Akademie Esslingen,
Postfach 1269, D-7302 Ostfildern,
Germany.

Committee Members:

Dr Rob Rowntree Tel: 01925 253564
Chairman

Dr Alex Alliston-Greiner
Tel: 01189 781898/666795

Mr Derek Astridge Tel: 01458 251699

Professor Tom Bell Tel: 0121 414 5195

Mr David Carnell Tel: 0115 940 5409

Dr Rob Dwyer-Joyce Tel: 0114 222 7736

Mr Brian Halligan Tel: 01483 757575

Dr Peter Jost Tel: 0181 345 5566

Dr Tony Lansdown Tel: 01792 366048

Dr Chris March Tel: 0113 233 2159

Mr Stephen Maw Tel: 01252 722255

Dr Roy Mortier Tel: 01189 843311

Dr Alec Parker Tel: 01926 812541

Dr David Parkins Tel: 01908 582257

Dr Bill Roberts Tel: 0161 928 2625

Prof. Brian Rowe Tel: 0151 231 2126

Dr Brian Roylance

Tel: 01792 295222/2056778

Dr Les Rudd Tel: 01224 723321

Prof Colin Seabrook Tel: 01377 253690

Dr Ian Sherrington Tel: 01772 893322

Mr Jeff Thomas Tel: 01639 872197

Mr Norman Way Tel: 01962 773583

Dr John Williams Tel: 01223 332641

Dr Robert Wood Tel: 01703 594881

Mr Bob Wood Tel: 01483 222424

Dr David Yardley Tel: 01283 553097

Caroline Childs Tel: 0171 304 6829

Executive Officer, Fax: 0171 223 1654

IMechE, 1 Birdcage Walk,
London SW1 9JJ

Tribology Group Committee's future plans

Following the success of the World Tribology Congress, the IMechE Tribology Group Committee has begun planning for two events initially scheduled to take place in 1999.

Indicative titles are: 'Tribology in Steelworks' and 'Developments in Automotive Materials for Tribology Performance'.

The TGC will work with the relevant committees of the Institute of Materials on

both projects and with the European Powder Metallurgy Association on the latter. First detailed announcements are scheduled to appear at the turn of this year.

If you wish to be placed on the mailing list, please fax or mail a card or letterhead, indicating 'Steel' or 'Automotive' to Robert B Wood, Chequers, The Street, West Clandon, Guildford GU4 7TG, UK.
(fax: +44 (0) 148 322 2185).

**AND FINALLY, PLEASE CIRCULATE THIS UPDATE
IT IS FOR THE BENEFIT OF EVERYONE**