



2026 ELGI AGM Best Paper Award

36th ELGI AGM

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Rome, Italy

ELGI Awards Committee unanimously selected the Paper & Presentation:

Hydrated Lubricating Greases and Customised Application Testing

For the 2025 Best Paper Award presented by

Gareth Fish

Lubrizol

United Kingdom

All the presentations were evaluated on several criteria that covered

- * Content of the Paper
- * Quality of the Presentation
- * Embodied the Spirit of Originality & Technological Innovations

On behalf of this committee and the ELGI board we would like congratulate Gareth Fish
on this important and worthy achievement.





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Dr Gareth Fish PhD DIC CSci CLS CLGS

Dr Gareth Fish is a Senior Technical Fellow at Lubrizol, Wickliffe, Ohio. He holds a BSc(Hons) in Chemistry and a PhD in tribology from Imperial College of Science, Technology and Medicine, London. He has more than 37 years grease industry experience. He is an internationally recognized, multiple (x21) award-winning author of 100 technical papers including 19 ELGI papers. He has taught more than 100 public classes on tribology and lubricating greases. A member of the NLGI Board of Directors and chair of the NLGI Basic Grease Course. He was 2020 recipient of the NLGI Award for Achievement. He is an NLGI Certified Lubricating Grease Specialist (CLGS), a Chartered Scientist (CSci), STLE Fellow and Certified Lubrication Specialist (CLS). He is a member of the Wnergy Institute. He is active within ASTM and SAE. Previously worked at UK Ministry of Defence and GKN Automotive in UK and USA.

Hydrated Lubricating Greases and Customised Application Testing

In Europe, the “Green New Deal” has outlined the requirement to operate in a more sustainable fashion. It has been identified that lubricating greases are a technology that can offer reductions in environmental impact. Included in these improvements are the replacement of mineral oils with alternative fluid technologies and reduced manufacturing footprints.

Emulsion based lubricants have been used in a variety of niche applications for decades, mostly in areas where fire is a significant risk. The latest generation of emulsions were shown to have many of the typical properties of lubricating greases. Standardised tests such as penetration, rust and corrosion, and typical friction, wear and load carrying were used to qualify these properties.

However, these bench tests do not correlate directly to applications. More customised testing methods are needed to identify the specific applications where the technology might excel. This paper will focus on the newest generation of high-performance emulsion greases while exploring non-standard test methods. Results of this customised testing could be used to determine applications in which a benefit might be gained from using these emulsion greases.