



2023 ELGI AGM Best Paper Award

33rd ELGI AGM

29th April – 2nd May 2023

Amsterdam Netherlands

ELGI Awards Committee unanimously selected the Paper & Presentation:

The Grease Life Factor (GLF) concept for ball bearings

For the 2023 Best Paper Award

presented by

Piet M. Lugt

SKF

Netherlands

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 Piet Lugt on this important and worthy achievement.



Author & Presenter: Professor Piet M. Lugt

Co-Author: Mr. Frank Berens

SKF

Meidoornkade 14

3992 AE Houten

The Netherlands

The Grease Life Factor (GLF) concept for ball bearings

Bearing fatigue life is a function of the bearing load capacity C , a parameter that is given for any bearing by the bearing manufacturer. Bearing grease life is not quantified by such a number. In grease specifications grease life is given by a number of hours that the grease survived on some (standardised) test rig (FE9/ASTM/ROF etc.). This paper describes a proposal to change this. Grease life can be quantified by a so-called 'Grease Life Factor' (GLF). This makes it possible, similar to bearing life, to quantify the life properties of a grease using 'any' grease life test rig. So there is no longer a need to specify grease life for standardized test rigs. The validity of this concept is illustrated with test data obtained from the most widely used test methodologies: FE9 and ROF.

Piet M. Lugt is the Senior Scientist at SKF Research and Technology Development and is a Full Professor Tribology-based Maintenance at the University of Twente (Centre for Grease Lubrication)

Piet Lugt studied mechanical engineering and tribology at the University of Twente in The Netherlands (MSc. 1988, PhD. 1992).

He worked at the Technical University of Delft until 1995 when he joined SKF Research where he has fulfilled several positions in Tribology and Lubrication, presently as a Senior Scientist.

He has been a part-time Professor at Luleå Technical University, Sweden, from 2005-2008 and is (part-time) full professor at the University of Twente since 2011.

Piet has written the book "Grease Lubrication in Rolling Bearings. Piet.lugt@skf.com