

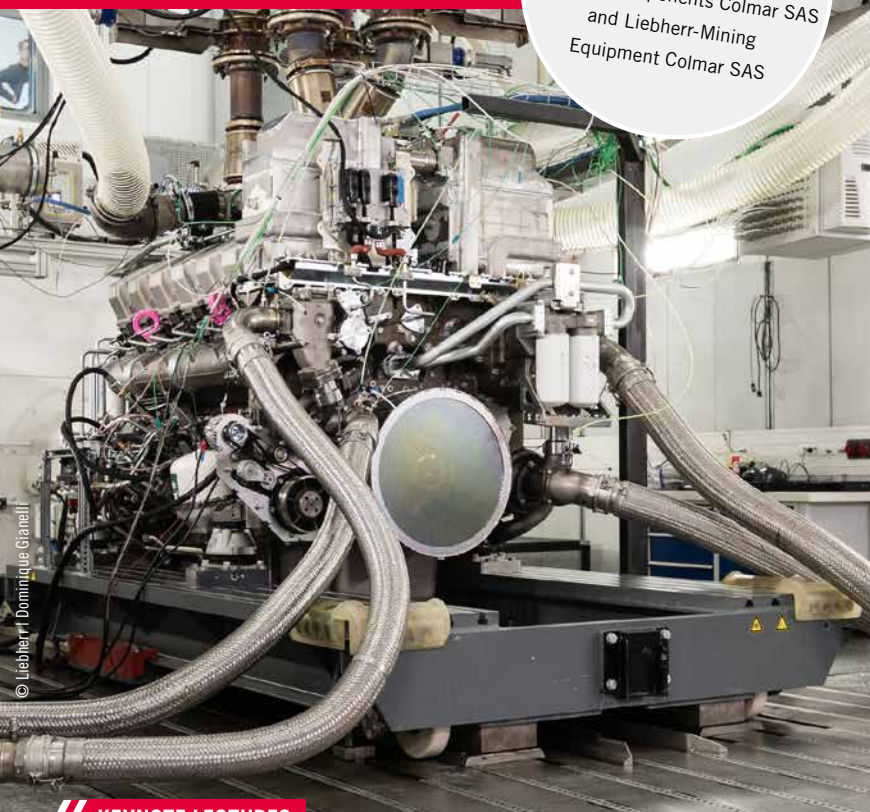
# Heavy-Duty Engines 2025

Commercial Vehicles | Agricultural and  
Construction Machinery | Marine

18 – 19 November 2025  
Colmar, France

**FACTORY TOUR**

Liebherr-Components Colmar SAS  
and Liebherr-Mining  
Equipment Colmar SAS



## KEYNOTE LECTURES

AGCO Power Inc. | Cummins Inc. | FIPRA International SRL |  
Liebherr-Components Colmar SAS | University of Bonn

# Identify and utilize synergies effectively

## / COMMERCIAL VEHICLES AND MOBILE MACHINERY

Sustainable powertrains, application-specific solutions, components

## / LARGE ENGINES

Gensets, dual and multi-fuel engines, marine propulsion systems

## / ENVIRONMENTAL IMPACT

CO<sub>2</sub> reduction, exhaust gas aftertreatment, alternative fuels

### HIGHLIGHT

**Tour of the Liebherr-Components Colmar SAS and Liebherr-Mining Equipment Colmar SAS plants**



**Dr. Alexander Heintzel**  
Editor-in-Chief ATZ | MTZ Group,  
Springer Nature

## Welcome

The heavy-duty engines sector is more diverse than almost any other. The engines are used not only on the road, but also in construction machines, agricultural applications, stationary local power generation, and shipping. In addition, these engines run on a wide variety of sources of energy, in support of efforts to make their applications more climate-friendly or climate-neutral. These include gases such as hydrogen, methane, or biogas from climate-neutral production, as well as methanol, ammonia, or HVO in a liquid form. In order to reflect this diversity, we have adapted and expanded the program of the MTZ Conference “Heavy-Duty Engines”. This enables us to provide new impetus and to highlight technology combinations and synergies. At the same time, the conference also offers access to a wide network of high-profile specialists.

This MTZ Conference will provide an opportunity for engine developers and designers of commercial vehicles, mobile machines, stationary systems, and marine engines to gain information on the very latest developments. The 20th conference will be supplemented by tours of Liebherr-Components and Liebherr-Mining Equipment.

We look forward to your participation in our anniversary conference.  
On behalf of the Scientific Advisory Board

## Stay at the cutting edge!

- ✓ Highly relevant technical papers presented by renowned speakers
- ✓ Networking in the international expert community
- ✓ Innovative products and services

## Heavy-Duty Engines

Manufacturers of heavy-duty engines and related components face mounting pressures: they are expected to meet rising demands for engine output, while also reducing fuel consumption, emissions, and assembly space.

New concepts for engines, emission reduction, and drivetrain optimization are called for in order to overcome these challenges. Combining presentations, in-depth discussions, and networking possibilities among experts, the international MTZ Conference “Heavy-Duty Engines” offers you the ideal platform.



## Scientific Advisory Board

Our Scientific Advisory Board, which is made up of prominent figures from the relevant field, provides support during the planning phase of the conference and helps to identify suitable topics.

With its expertise, the board has made a valuable contribution to the choice of themes for the lecture program.



**Prof. Dr. Michael Günthner**  
University of  
Kaiserslautern-Landau (RPTU)

Scientific Director of the Conference

**David Bennet**  
Ricardo UK Ltd

**Rolf Brück**  
Emitec Technologies GmbH

**Prof. Dr. Bert Buchholz**  
University of Rostock

**Dr. Heiner Bülte**  
DEUTZ AG

**Bernd Danckert**  
ICCL – Integrated Consulting  
Company GmbH

**Dr. Volker Groß**  
Liebherr-Components Colmar SAS

**Dr. Alexander Heintzel**  
Editor-in-Chief ATZ | MTZ Group,  
Springer Nature

**Dr. Andreas Kolbeck**  
Shell Deutschland GmbH

**Dr. Michael Krüger**  
Robert Bosch GmbH

**Werner Kübler**  
MAN Truck & Bus SE

**Dr. Andreas Lingens**  
Woodward L'Orange GmbH

**Prof. Dr. Gerhard Reiff**  
KST-Motorenversuch GmbH & Co. KG

**Peter Thomas**  
Tenneco GmbH

**Dr. Heike Többen**  
Purem GmbH

**Martin Urban**  
Rolls-Royce Solutions GmbH

**Dr. Ioannis Vlassos**  
Winterthur Gas & Diesel Ltd.

**Dr. Marco Warth**  
MAHLE International GmbH

**Wolfgang Weller**  
Daimler Truck AG

**08:45 Welcome and opening of the conference**  
Dr. Alexander Heintzel, Editor-in-Chief ATZ | MTZ Group, Springer Nature, Germany;  
Prof. Dr. Michael Günthner, Head of Institute, Institute of Vehicle Propulsion Systems (LAF), University of Kaiserslautern-Landau (RPTU), Germany

09:00 – 10:30

**KEYNOTE LECTURES I**

Moderation: Prof. Dr. Michael Günthner, Head of Institute, Institute of Vehicle Propulsion Systems (LAF), University of Kaiserslautern-Landau (RPTU), Germany

**KEYNOTE**

**09:00 Evolution of the markets and their influence on a construction equipment manufacturer like Liebherr**  
Dr. Volker Groß, Technical Director, Technology and Development, Liebherr-Components Colmar SAS, France

**KEYNOTE**

**09:30 The future of the combustion engine: the road towards zero-emission off-road powertrains**  
Ismo Hämäläinen, Department Lead Power Systems Performance, AGCO Power Inc., Finland

**KEYNOTE**

**10:00 Current developments in CO<sub>2</sub> regulation at EU level**  
Christof Klitz, Special Advisor Transport, Green and Digital Transition, FIPRA International SRL, Belgium

**10:30** Refreshment break with coffee and tea in the exhibition area

The current conference program and further information can be found online:

[www.atzlive.com/heavyduty](http://www.atzlive.com/heavyduty)



11:00 – 13:00

**ENGINES I**

Moderation: Dr. Michael Krüger, Senior Vice President Engineering System Domains, Robert Bosch GmbH, Germany

- 11:00 The MAN D3872 marine engine – a new 30l diesel engine with a great future**  
Bernd Huneke, Head of Design Marine Engines, MAN Truck & Bus SE, Germany
- 11:30 NO<sub>x</sub> reduction potential of water injection and EGR in NRMM diesel engines during HVO operation**  
Jonas Fuhrmeister, Research Associate, Institute of Vehicle Propulsion Systems (LAF), University of Kaiserslautern-Landau (RPTU), Germany
- 12:00 Increased power output – enabler for increased machine efficiency under more challenging market conditions**  
Thomas Körfer, Global Director Diesel Systems, FEV, Germany
- 12:30 The new Liebherr H<sub>2</sub> PFI engine and its injection system: power and dynamics for heavy-duty and demanding applications**  
Lydia Kapusta, Project Manager Alternative Fuels, Mario D'Onofrio, Department Leader CRS System Development, Liebherr-Machines Bulle SA, Switzerland [in cooperation with Liebherr-Components Deggendorf GmbH, Germany]

**13:00** Lunch in the exhibition area

14:30 – 16:00

**DIGITAL DEVELOPMENT**

Moderation: Marc Ziegler, Deputy Editor-in-Chief MTZ, Springer Nature, Germany

- 14:30 Development of a hydrogen-fueled active pre-chamber for a high-speed large bore size engine application**  
André Barroso, Assistant Chief Engineer, Attributes, Ricardo UK Ltd, UK [in cooperation with Ricardo Prague s.r.o., Czech Republic]
- 15:00 Bosch Digital Fuel Twin – a solution to foster the usage of renewable fuels in various on- and off-road applications**  
Dr. Marko Babic, Head of Product Area Air Quality and Sustainability Solutions, Robert Bosch GmbH, Germany [in cooperation with Robert Bosch AG, Austria]
- 15:30 Virtual test beds: enhancing engine testing with innovative real-time models**  
Robert Strasser, Technical Expert System Simulation, AVL List GmbH, Austria [in cooperation with Rolls-Royce Power Systems AG, Germany]

- 16:00** **Welcome and introduction to the tour of the Liebherr-Components Colmar SAS and Liebherr-Mining Equipment Colmar SAS plants**  
Dr. Volker Groß, Technical Director, Technology and Development, Liebherr-Components Colmar SAS, France
- 16:15** Refreshment break with coffee and tea in the exhibition area
- 16:45** Bus transfer or individual travel to the factory tour

**HIGHLIGHT**

- 17:00** **Factory tour: gain an exciting insight into the production of high-performance mining equipment at Liebherr in Colmar**

**Liebherr-Components Colmar SAS** develops and produces powerful combustion engines of the series D98 and D99. The engines are produced for the internal Mining customers as well as for external customers. The engines are available for different applications and emission requirements.

**Liebherr-Mining Equipment Colmar SAS** manufactures excavators for the mining industry with operating weights ranging from 100 to 800 tonnes and bucket volumes of up to 47.5 m<sup>3</sup>. The company coordinates all the activities of the Mining division, which comprises two production companies located in Colmar and Newport News (USA). These two sites are responsible for developing and manufacturing large hydraulic excavators and off-highway trucks for the mining industry. An international distribution and after-sales network guarantees proximity to customers and high machine availability.



- 19:00** Bus transfer or individual travel to the networking dinner
- 19:30** **Networking dinner at the Castle of the Brotherhood Saint Etienne in Kientzheim**  
Enjoy a pleasant evening and interesting conversations over dinner with colleagues and speakers.



08:30 – 10:00

KEYNOTE LECTURES II

Moderation: Rolf Brück, Managing Director,  
Emitec Technologies GmbH, Germany

- 08:30

KEYNOTE

**Advancing Destination Zero –  
powering the future of commercial transport**  
Mark O'Connor, Executive Director –  
Cummins Components & Software Sales Leader, Cummins Inc., UK
- 09:00

KEYNOTE

**Lecture to be confirmed**
- 09:30

KEYNOTE

**Pathways to alternative drive systems  
for mobile agricultural machinery**  
Prof. Dr. Peter Pickel, Chair for Agricultural Robotics & Engineering,  
Institute of Agricultural Engineering, University of Bonn, Germany

10:00 Refreshment break with coffee and tea in the exhibition area

10:30 – 12:00

EXHAUST AFTERTREATMENT

Moderation: Dr. Heiner Bülte,  
Head of Performance & Emissions, DEUTZ AG, Germany

- 10:30

**Large engine purification solution for stationary  
and marine applications**  
Rolf Brück, Managing Director, Emitec Technologies GmbH, Germany
- 11:00

**Tailoring emission control systems  
for methanol combustion engines**  
Dr. Enno Eßer, Development Engineer Catalysts, Hug Engineering AG,  
Switzerland
- 11:30

**Zero-impact commercial vehicles for municipal utilities:  
intelligent exhaust system thermal management  
utilizing CatVap® and HVO**  
Dr. Georg Hühthwohl, Managing Director, Albonair GmbH  
[in cooperation with Remondis Sustainable Services GmbH], Germany

12:00 Lunch in the exhibition area

13:00 – 14:00

COMPONENTS

Moderation: Dr. Marco Warth, Vice President Corporate Research  
and Advanced Engineering (CR), MAHLE International GmbH, Germany

- 13:00

**Sealing materials for conventional and alternative fuels  
in heavy-duty commercial vehicles**  
Tobias Haas, Market Manager Truck & Bus,  
Parker Hannifin Manufacturing Germany GmbH & Co. KG, Germany
- 13:30

**Development and characterization of high-temperature  
wear-resistant alloys**  
Dr. Xuecheng Liang, Chief Technology Officer, Winsert LLC, USA

14:00 Refreshment break with coffee and tea in the exhibition area

14:30 to 16:00

ENGINES II

Moderation: Wolfgang Weller, Head of Design Engines,  
Daimler Truck AG, Germany

- 14:30

**Enhancing mixture formation and combustion efficiency  
with ammonia-hydrogen injection in spark-ignition engines**  
Sandro Silvestrini, PhD Student, Predevelopment,  
Liebherr Machines Bulle SA, Switzerland [in cooperation with  
Karlsruhe Institute of Technology (KIT), Germany]
- 15:00

**New impetus for the targeted development of hydrogen engines  
in various applications**  
Dr. Peter Berlet, Senior Coordinator Business Development,  
IAVF Antriebstechnik GmbH, Germany
- 15:30

**Investigation of SI ammonia combustion with hydrogen  
enhancement and on-board hydrogen reformation**  
Dr. Mike Bassett, Head of Engineering, MAHLE Powertrain Limited  
[in cooperation with University of Nottingham], UK
- 16:00

**Summary of the conference and closing remarks**  
Prof. Dr. Michael Günthner, Head of Institute,  
Institute of Vehicle Propulsion Systems (LAF),  
University of Kaiserslautern-Landau (RPTU), Germany;  
Dr. Alexander Heintzel, Editor-in-Chief ATZ | MTZ Group,  
Springer Nature, Germany



### KST-Motorenversuch GmbH & Co. KG

#### KST – Testing powertrains to move the future

As an independent testing service provider with a strong focus on innovation and more than 55 years of experience in engine and powertrain development, we have established ourselves as one of the key players in this market.

KST offers a full range of specialized testing services for OEMs and Tier 1 suppliers. Our infrastructure boasts close to 85 state-of-the-art engine test benches for passenger and commercial vehicle tests as well as for off-road vehicle test applications with a strong emphasis on development topics for e-mobility, hydrogen drive systems, and synthetic fuels.

We also bring a high level of experience and competence to the table, in the field of industrial, rail, and marine engine testing with a power capacity of up to 4 MW.

#### KST's service portfolio overview:

- Electric / hybrid drive systems in all performance categories
- Power electronics / inverters, including HiL
- Battery testing, including reliability and abuse test work
- Hydrogen-based drive systems, hydrogen engine and fuel cell testing, and electrolyzers
- Synthetic fuels / operating materials, including HVO
- Large engines – industrial / railway / marine, including hydrogen applications
- Future-oriented technologies for internal combustion engines

Cooperation partner



[www.kst-motorenversuch.de/en/](http://www.kst-motorenversuch.de/en/)

### Your presentation platform

Take this opportunity to present your latest products and services to the specialist audience: as an exhibitor in our exclusive exhibition and/or as a sponsor with an attractive advertising presentation. Make use of this industry meeting place to make valuable contacts with customers. For information on the various presentation options, please contact:

Mr. Alex Woidich

Phone +49 611 7878-206

[alex.woidich@springernature.com](mailto:alex.woidich@springernature.com)

Media partners



**Registration fee**

€ 1,595.– plus VAT (France)

This includes the conference documentation, the use of the digital event platform as well as the catering during breaks and the evening event on 18-11-2025.

**Date**

18 – 19 November 2025

**Venue**

Colmar Exhibition Centre  
Avenue de la Foire aux Vins  
68000 Colmar, France

**Languages used in the presentations**

German and English with simultaneous interpreting  
(German – English / English – German)

**Hotels**

Some hotels have room blocks at reduced prices for the participants.  
You can find more information on the events page of our website.

**Further information  
and online registration:**

[www.atzlive.com/heavyduty](http://www.atzlive.com/heavyduty)



**Participants**

The MTZ Conference "Heavy-Duty Engines" is aimed worldwide at experts from engine and vehicle manufacturers in the fields of commercial vehicles, mobile machinery, stationary and marine engines, suppliers and development partners, teaching staff and research assistants from universities, representatives of authorities and associations and engineers active in these fields.

**Further information  
and online registration:**

[www.atzlive.com/heavyduty](http://www.atzlive.com/heavyduty)



Heavy-Duty Engines 2025  
Commercial Vehicles | Agricultural and Construction Machinery | Marine  
18 – 19 November 2025, Colmar, France

**FACTORY TOUR**

Liebherr-Components Colmar SAS  
and Liebherr-Mining  
Equipment Colmar SAS

**Your contact partner**

Marc Vestweber  
Abraham-Lincoln-Straße 46  
65189 Wiesbaden, Germany

Phone +49 611 7878-132  
[ATZlive@springernature.com](mailto:ATZlive@springernature.com)

The organizer

**ATZlive** // Spotlight on Powertrain and Vehicle Engineering

Our events are firm fixtures in the diaries of automotive engineers and powertrain specialists. We offer a range of innovative conferences on the latest topics in the world of automotive engineering and powertrain technology, from the perspective of research, development, and applications.

Our close collaboration with the editorial teams of our specialist magazines ATZ and MTZ keeps us fully up-to-date on the latest topics and trends on the market.

Springer, with its automotive technology brands in the ATZ and MTZ Group, is part of Springer Nature, one of the world's leading publishing groups for scientific, educational and specialist literature.