

# Plenary Lecture

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**Title: Internal Combustion Engine Today and Tomorrow in China**

## Abstract

Today, the development of internal combustion engine industry in China is facing severe challenges from energy, environment and international competition. Diesel engines emit more carbon dioxide and pollutants than gasoline engines. Heavy-duty diesel engines for application of highway logistics represent the most advanced technology level in power sources of commercial, marine and industrial machinery. How heavy-duty diesel engines confront the challenges of regulations, markets, customers and new energy resources, as well as electromotive technology will directly affect the future of diesel engine industry. By enhancing internal efficiencies add-on waste heat recovery technology, diesel and natural gas engines will achieve BTE 50% to 55% on basis of emitting nearly zero emissions. Combining with compound power technologies, BTE will be further updated to 60%. In highway logistics heavy-duty diesel engines will continue to play an important role as a high-efficiency, clean and intelligent power source in the next 10-20 years.