ISSN: 2168-9873
Journal of Applied Mechanical Engineering

OPEN ACCESS Freely available online

Perspective

# Experimental Investigations on Combustion Performance Emissions on Characteristics of Combustion Engine

**Theresa Crimmins***

*Department of Geodetic Engineering, Ohio State University, Columbus, USA*

## DESCRIPTION

Energy demand is increasing significantly worldwide, with population growth and enhanced living standards. Fossil fuels are, however, a source of energy for almost every sector, including industry transport, etc., Extensive fossil fuel consumption contributes to worldwide Green House Gas (GHG) emissions that harm public protection and environmental issues. Some of the main contributors to environmental pollution are the Internal Combustion (IC) engines used for transport, electricity generation, and industrial sectors. Energy-efficient combustion strategies are being investigated and used to resolve this situation. In regards, ecological renewable energy sources may help reduce greenhouse gas emissions. This chapter deals with traditional energy conversion processes, air pollution and environmental issues, IC engines, Diesel emissions from the automotive sector and advanced combustion technologies.

Energy demand is increasing through growth in industrial and economic development. Fossil fuels account for over half of the energy usage in most countries, representing two-thirds of the primary consumption of resources in the world. The world's sustainable energy use and fuel source. China absorbs 23% of the nation's total consumption of resources (approximately one-fourth) led by U.S consumption of 17.3%. India depletes 5.6%of global energy consumption. Fossil fuels lead to the bulk of fuel economy with gasoline, natural gas and coal sources. The key issues with imminent energy approaches include growing economic growth, increasing migration of the population, increased generation and consumption of energy and transport of goods. Thus, the need for reliable, sustainable and efficient energy sources is viewed with health and environmental problems related to the use of fossil fuel burning.

Main energy consumption sectors are: (i) Electricity generation, (ii) Transport, (iii) Farming, (iv) Manufacturing and (v) Ménages. The commercial sector's human activity GHG emissions. Power generation, industry and farming are the main sectors leading to GHG emissions. The transport sector emits 14% of the emissions of GHG from fuels used by road, train, air and ship. Most of the nation's automotive energy (95%) comes from fossil fuel-based fuels, primarily petrol and diesel.

Low air pollution and environmental issues are two altered concepts, yet they have common reasons for pollutants from a wide range of sources and actions. Renewable energy incineration is the primary source of both. Enhancing air quality and environmental issues would help to reduce renewable energy combustion emissions. Pollution problems such as surface-level ozone, smut, other air pollutants emitted and global warming mainly happen in the lowest part of the pollution we breathe. Escalating temperatures lead to changes in the earth's temperature as a whole, caused by human actions that emit a carbon dioxide surplus into the environment.

## CONCLUSION

The anomalous development of GHGs heats the earth's surface. In turn, global climate change in the environment causes significant swings in the global environment. There seems to be a massive increase in the altitude required to deal with the melting of ice sheets and icebergs and also temperature change. This is anticipated to speed up in the coming years. Internal combustion (IC) engines are the primary element of the overall automobile sector. But scientists noticed that the IC engine is the primary source of environmental pollution. The IC engines generate power in addition to harmful emissions, i.e. carbon monoxide, carbon dioxide, nitrogen oxides, unburned hydrocarbons, and particulate matter. Now the scientists are focusing on minimizing these harmful emissions from IC engines along with the increase of efficiency.

**Correspondence to:** Theresa Crimmins, Department of Geodetic Engineering, Ohio State University, Columbus, USA, E-mail: crimmins.theresa@osu.edu

**Received:** 01-Dec-2022, Manuscript No.JAME-22-19526; **Editor assigned:** 05-Dec-2022, Pre QC No. JAME-22-19526 (PQ); **Reviewed:** 19-Dec-2022, QC No JAME-22-19526; **Revised:** 26-Dec-2022, Manuscript No. JAME-22-19526 (R); **Published:** 02-Jan-2023, DOI: 10.35248/2168-9873.22.11.450.

**Citation:** Crimmins T (2023) Experimental Investigations on Combustion Performance Emissions on Characteristics of Combustion Engine. J Appl Mech Eng. 11:450.