

Further information

Low-Carbon Vehicle: www.locar.come2scandinavia.com

BTS engine: www.bts.come2scandinavia.com

ISS transmission: www.iss.come2scandinavia.com

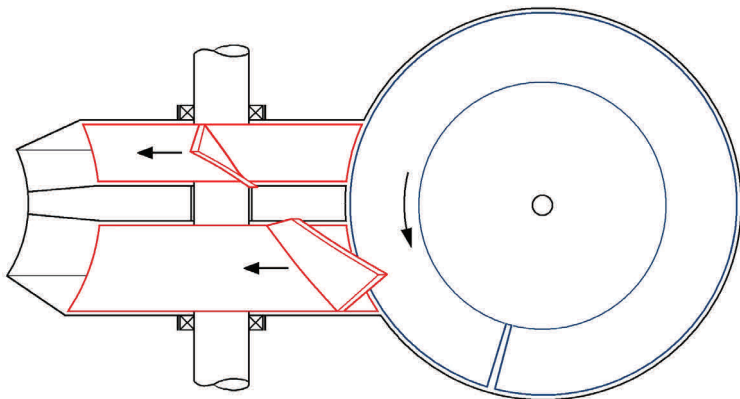
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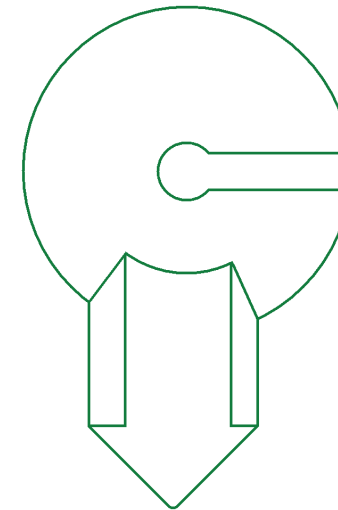
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Low-Carbon Vehicle

A simple yet revolutionary vehicle concept

Hybrid-class efficiency at a fraction of the cost



- 35% less fuel consumption than state-of-the-art gasoline vehicles
- 20% less fuel consumption than state-of-the-art turbodiesel vehicles
- ready for low-emissions fuels, including hydrogen and biofuels

Low-Carbon Vehicle

The Low-Carbon Vehicle (LoCar) is a very simple concept: it integrates the BTS high-efficiency combustion engine and optionally the ISS intelligent transmission into conventional vehicles.

While fuel-electric hybrid vehicles must be designed from scratch, the LoCar concept uses conventional state-of-the-art vehicle platforms and bodies to achieve comparable fuel efficiencies.

This approach dramatically reduces development, manufacturing and operational costs of LoCar vehicles.

BTS combustion engine

The gasoline BTS engine promises fuel efficiencies and CO₂ emissions in the same range as fuel-electric hybrid systems at a fraction of the cost and complexity.

The gasoline BTS engine offers fuel efficiency and CO₂ emissions comparable to Homogeneous Charge Compression Ignition (HCCI) engines currently under development, again at a fraction of the cost and complexity.

The gasoline BTS engine burns 33% less fuel and produces a third less CO₂ than a comparable conventional gasoline engine.

The naturally-aspirated diesel BTS uses 19% less fuel and emits a fifth less CO₂ than an equivalent turbocharged conventional diesel.

ISS transmission

The ISS is an intelligent transmission that provides instant and effortless gear shifting. Besides the convenience for the driver, the ISS reduces fuel waste associated to gear shifting in conventional manual and automated vehicle transmissions.

Potential markets

Major opportunities for the LoCar exist in developing countries, where simpler and lower cost solutions are preferred.

The LoCar is also competitive in developed countries as fuel prices increase and emission standards get tighter. The recently announced new emissions target for Denmark (40% reduction by 2020) for example opens huge opportunities for the deployment of the LoCar.

When compared to other high-efficiency solutions, namely fuel-electric hybrids and plug-in electric cars, the LoCar holds advantage in terms of economic efficiency as it offers similar fuel efficiency at much lower cost.

Economic and environmental advantages

Widespread adoption of LoCar vehicles would improve fuel efficiency of global road transport in about 20% for diesel oil and 35% for gasoline.

Mainstream use of LoCar vehicles would reduce local pollution and global carbon emissions from road transport, a major consumer of fossil fuels.

Potential cuts in carbon emissions by this sector are in the order of 20-35% for LoCar vehicles with standalone BTS engines, and 35-45% for LoCar fuel-electric hybrids with incorporated BTS engines.

Status and further development

The development of the BTS engine and the ISS transmission have completed the conceptual stage. Initial computer simulations have been run to estimate expected fuel efficiencies.

The preferred option for the practical development of the Low-Carbon Vehicle is the constitution of a start-up company.