DAIMLER TRUCK

Vehicle OEMs – Daimler Truck Perspective

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FREIGHTLINER · Thomas Built Buses · Western Star · FUSO · BharatBenz · RIZON · SETRA · Daimler Truck Financial Services

Vocational Applications

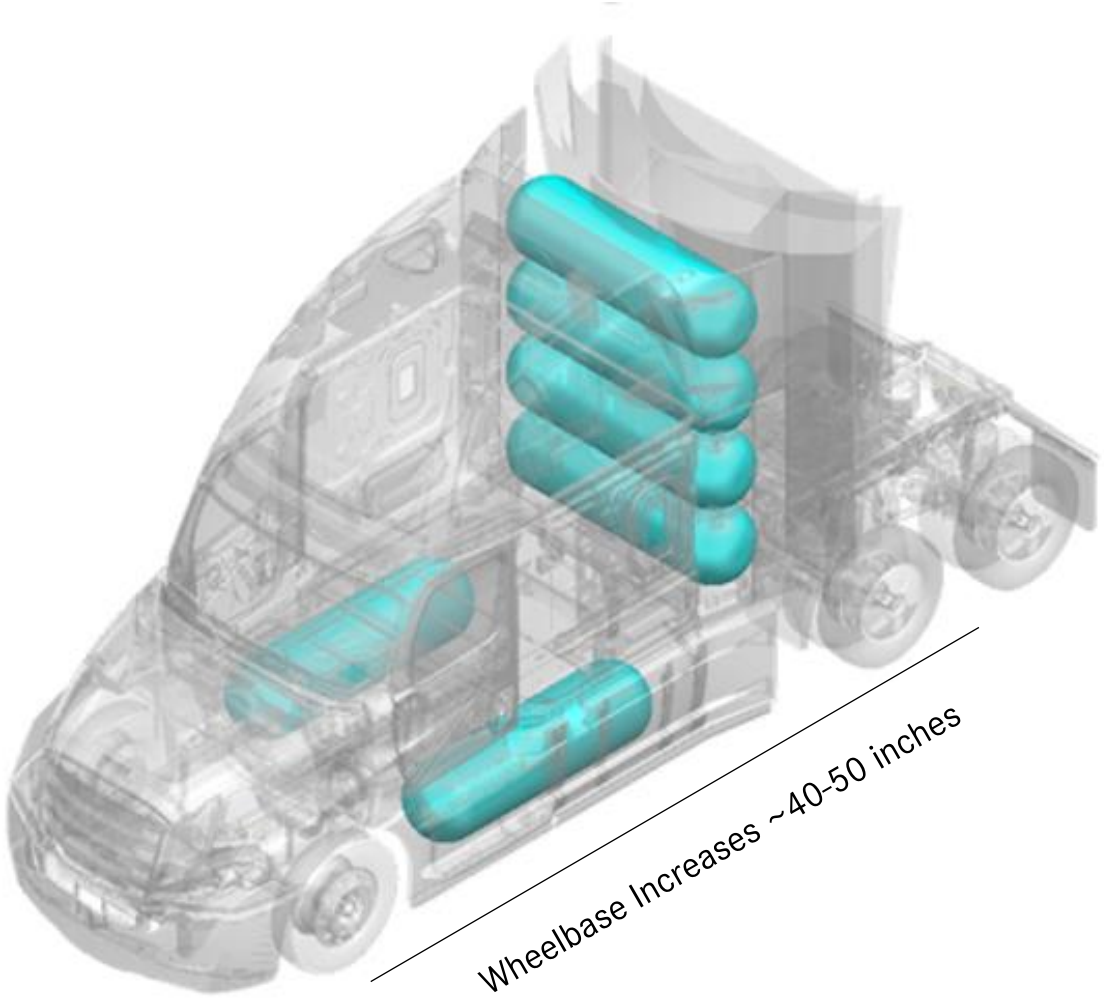
Market Considerations:

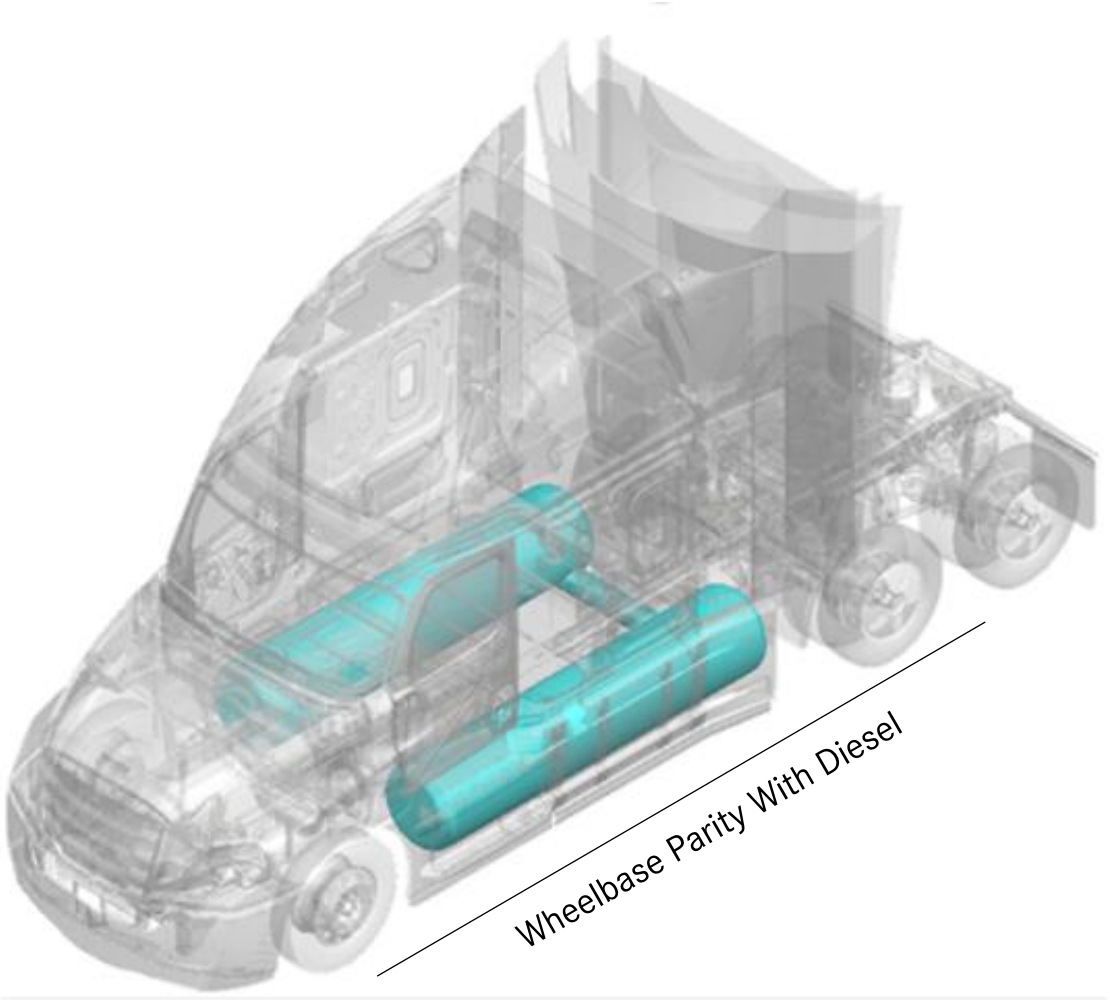
- Lift Axles
- Body Equipment
- Bridge Law Reqs
- Multiple Loads/Day

Long Haul Applications

Market Considerations:
~600 miles/day
Efficiency is Critical
Sleeper Cabs
Maneuverability

Compressed System vs Liquid Storage – Long Haul





sLH2 Fueling Stations for heavy duty land vehicles

- Filling of subcooled LH2 at approx. 26 K into a vehicle tank to pressures up to 1.6 MPa
- Advancement of known technology LH2 filling (at pressures up to 0.6 MPa)
- sLH2 Filling offers many advantages over LH2 filling
- Allows high flow fueling (> 400 kg H2/h) with very low TCO
- sLH2 Fueling Process and Interface shall be standardized in open CEP working groups

sLH2 offers high Performance for Long Haul Trucks

Cost efficient
No Carbon Fiber for Tanks required

High Storage Capacity
>100kg H2 usable in Tractor

Fueling of multiple Tanks
through just one Connection

Fast refueling comparable to conventional fueling

No H2 losses in fueling
Refueling w/o H2 losses

No H2 losses in operation
Typical Long Haul Heavy Duty operation profiles w/o boiloff

No data transfer required for refueling process control

Low energy demand
<0.05 kWh/kg hydrogen dispensed

No protective clothing required

sLH2 is an Open Standard available Industry-wide

Whitepapers Accessible

The sLH2 Fueling Process and Interface are defined via Whitepapers publicly available (1)

ISO Standard In Progress

ISO Working Group (TC 197 / WG35) is working on standard for sLH2 Refueling

ISO Working Groups

The target is One Common Standard usable industry-wide