

DW DESIGN
WERK

—
Elektrisk
Snøbrøyting
test Dombås



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Statens vegvesen

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Background testen

- ✓ Goal: er elektrisk snøbrøyting mulig?
- ✓ Februar 2024
- ✓ Dombås-området (E6 Dovrefjell og E136 Bjorli)
- ✓ Designwerk HC6x2T 1000kWh batteri 🪫 med 500kW(680hk) of 350kW charge port
- ✓ Med plog, ingen spreder (5t last bakside)
- ✓ Basert på Volvo FH-chassis, drivlinje fra Designwerk
- ✓ Eies av Litra, leid ut til Statens vegvesen, operated by SBM på Dombås



Snowplow test Litra2 (1000kWh) Statens vegvesen

Full day on E136 between Dombås and Bjorli

- 21,6t total weight (Plow weight 1160kg)
- Temperature -4/-5C
- Between light and heavy snow, strong and gusty wind
- Average driving speed 45km/h
- Plow constant in use
- Started at 07:30 and stopped at 16:15 (8h45m)
- Start SOC 90%, end SOC 28% (519kWh used)
- With this consumption you could potentially drive 11 hours without charging (1000kWh truck)
- Average consumption 182kWh/100km
- Notes: no spreader/hopper installed, will add around 20-30kWh/100km if in continues use



Snowplow test Litra2 (1000kWh) Statens vegvesen

Half a day on E6 Dovrefjell (Dombås – Hjerking)

- 22,1t total weight (different plow and ice/snow on vehicle)
- Temperature -9/-10C
- Light snow and light to moderate winds
- Average driving speed 45km/h
- Plow constant in use
- Started at 08:00 and stopped at 13:00 (5h)
- Start SOC 89%, end SOC 55% (310kWh used)
- With this consumption you could potentially drive (>)12 hours without charging (1000kWh truck)
- Average consumption: 165kWh/100km
- **Note:** no spreader/hopper installed, will add around 20-25kWh/100km for PTO if in continuous use

Snowplow test Litra2 (1000kWh) Statens vegvesen

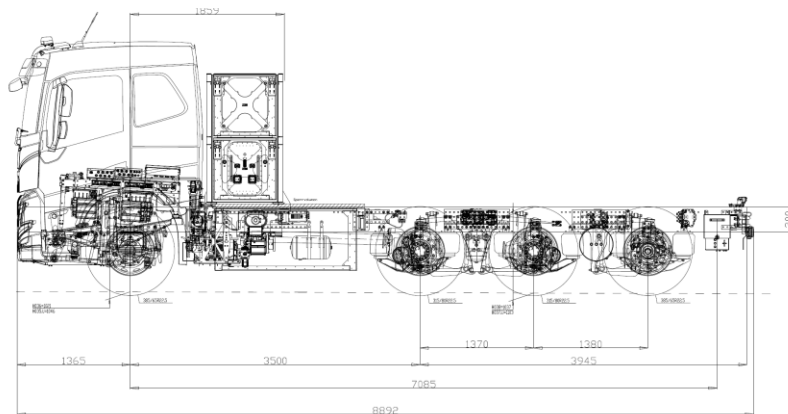
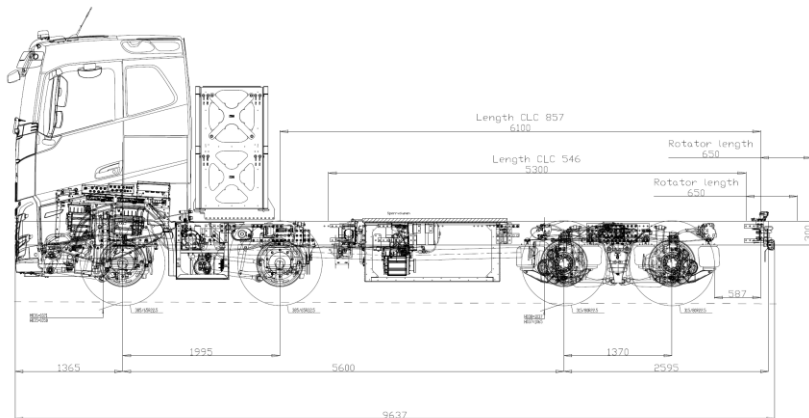
Closed road opening simulation (2 days)

- Location: Bjorli flyplass (1000m strip)
- Conditions: 60cm compact snow on runway, temperature between -32C and -21C
- Equipment: V-shape plow (spissplog) and normal plow
- Conclusion:
 - Battery not limiting
 - Power engine not limiting
 - >400kWh/100km consumption
 - Truck a bit too light and short for this application, but that was known on forehand.
 - Successful road opening simulation test



Brøytebil options

8X4 Tridem eller Tandem 1000kWh



Spezialbil options

Based on FH/FM/FMX Volvo chassis



Thank **you**

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