

Importance of hardness and tread depth for winter truck tires

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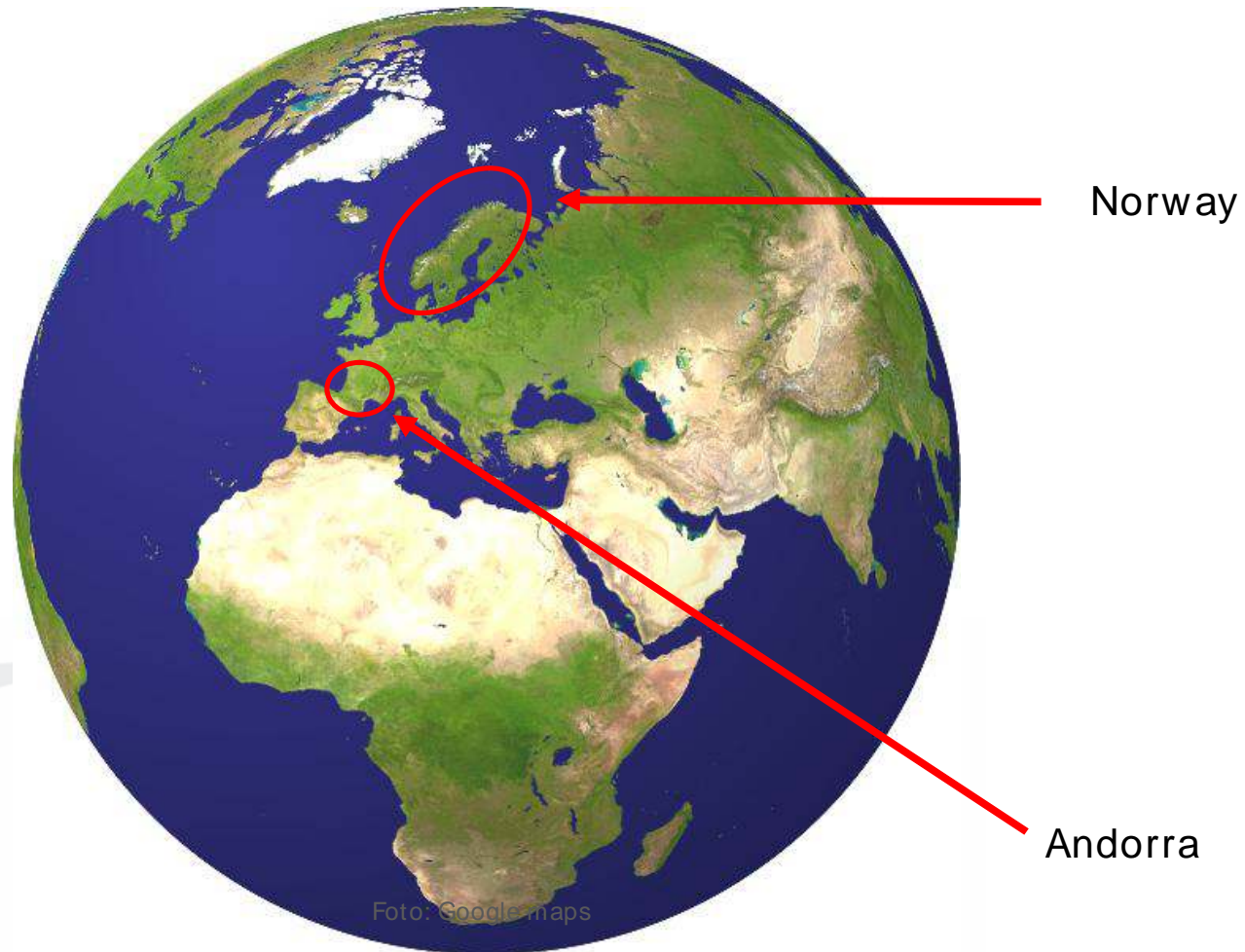
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0. Content

1. Background
2. Shore-value on Norwegian trucks vs. foreign trucks
3. Traction
4. Braking distance

1. INTRODUCTION



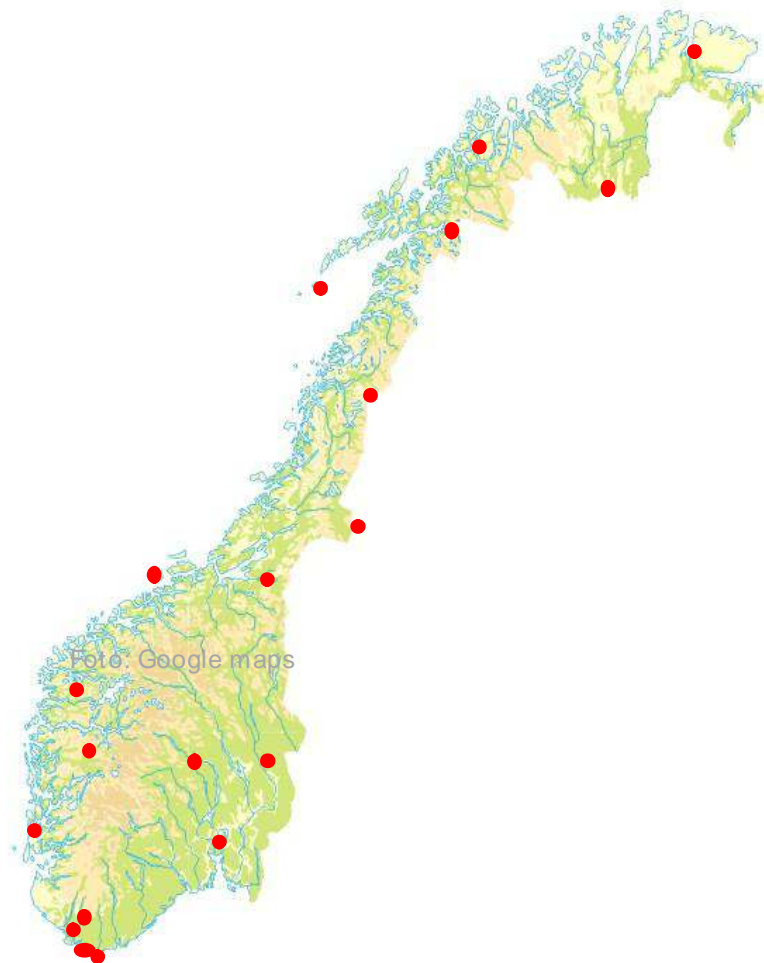








Foto: yr.no

2. Shore-value on Norwegian trucks vs. foreign trucks

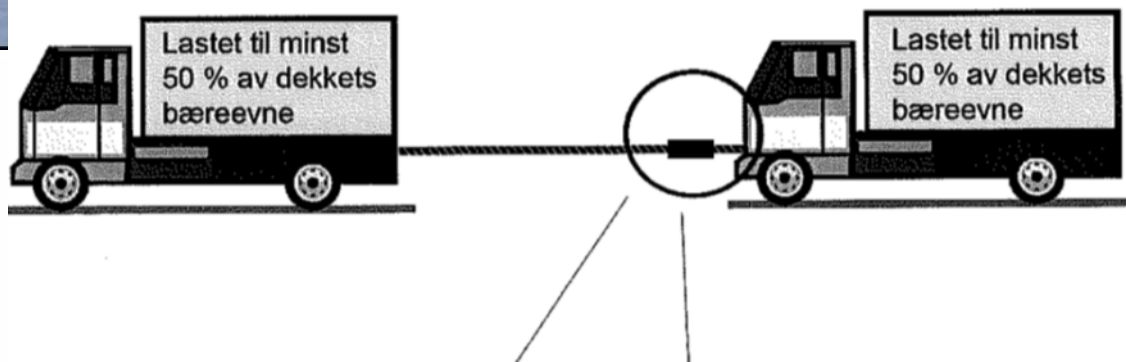
- Random trucks were stopped
- No difference between Norwegian and foreign trucks

Horgheim	Shore value	Tread depth [mm]
Norwegian trucks	63,8	12,8
Foreign trucks	63,7	12,5
Non-Nordic trucks	63,4	12,7
Otta	Shore value	Tread depth [mm]
Norwegian trucks	61,2	-
Foreign trucks	63,2	-

3. Traction

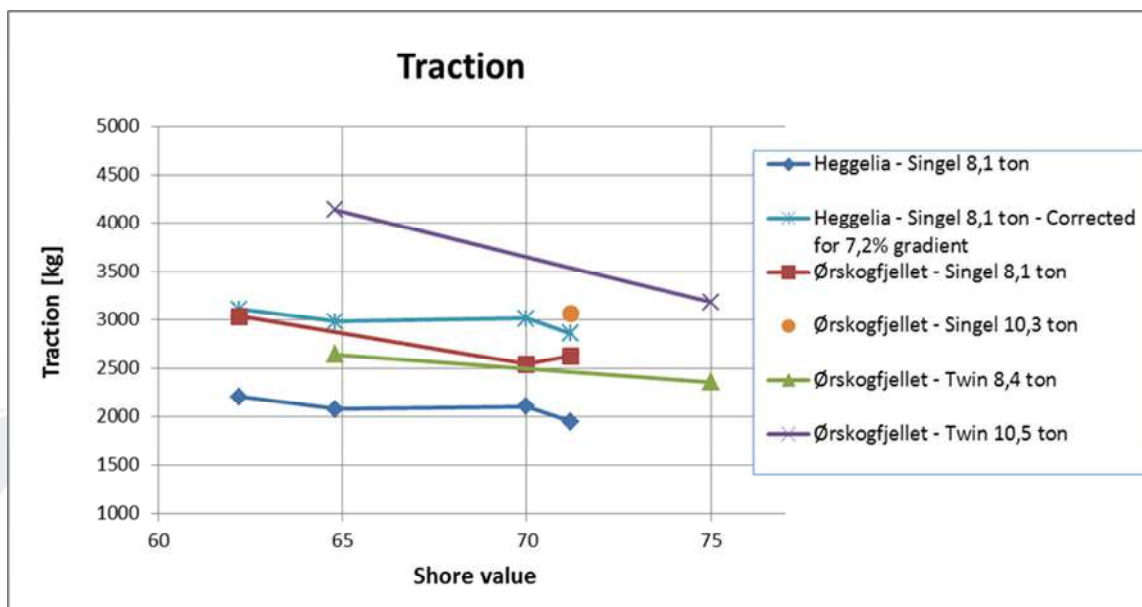


Average rise: 7 %



3. Traction

- Traction decreases with 15 – 20 % when shore-value increases with 10 units.



4. Braking distance



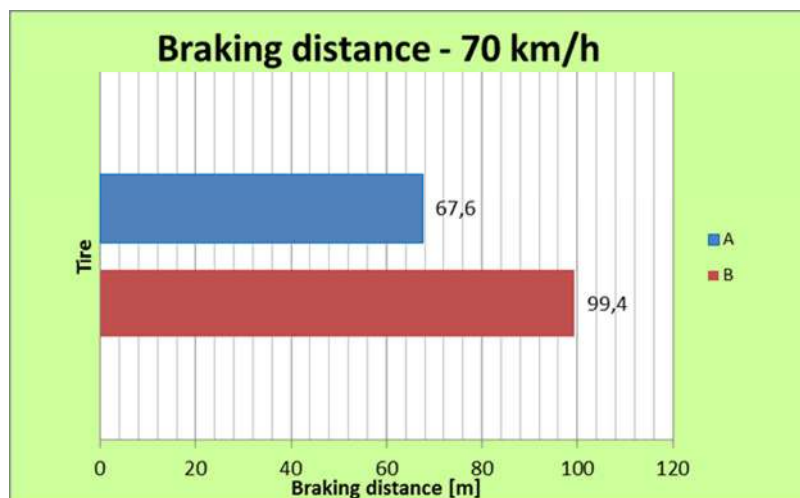
- "Good" winter tire vs. "poor" winter tire.
- Friction calculated from reference car.
- Braking distance measured with GPS

4. Braking distance



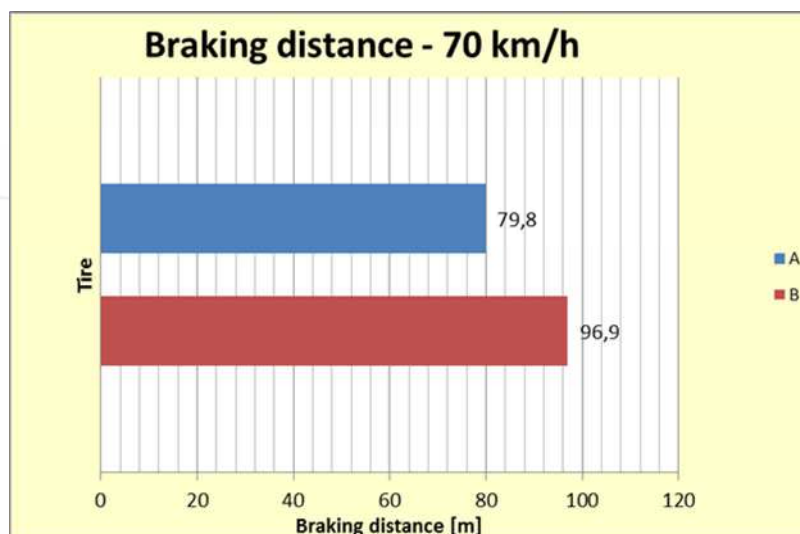
4. Braking distance

Truck, empty



$\Delta = 23,9 \%$

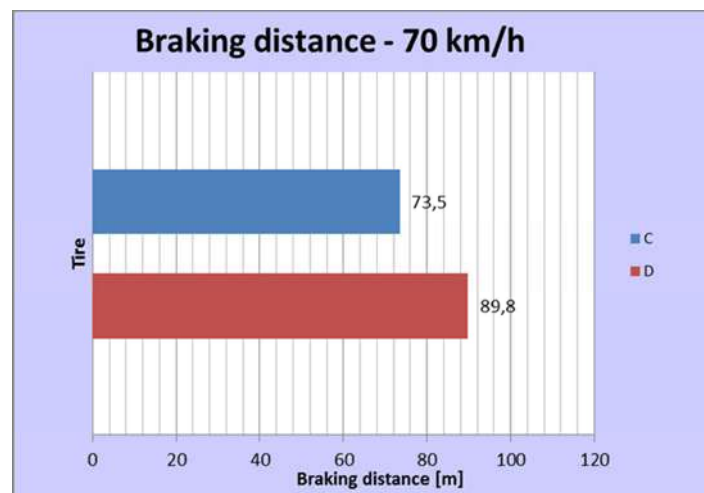
Truck, with cargo



$\Delta = 30,8 \%$

4. Braking distance

Passenger car



$\Delta = 17,6 \%$

- Tread depth and shore value are of great importance for traffic safety.

The end

Thanks for your attention

