Sweden and oil industry



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Sweden, the fourth largest country in the EU, covering 450,295 square kilometres, has always appeared as a very stable and neutral country with not much happening. On the contrary, with a population of about 10.4 million people (2021), it has one of the highest per capita gross national products in the world, with a very high proportion of patent applications, and high taxes. It has been very successful in the automotive and industrial sectors, producing giants like Alfred Nobel, and companies such Atlas Copco/Epiroc, Sandvik, Volvo, Scania, Ericsson, Spotify, Skype, Skanska, SKF, Alfa Laval, Ikea, H&M, and Electrolux to name a few.

Stockholm, its largest city, is Sweden's capital, with a population of 975,000 people in 2021. However, the country has a low population density, who are mostly found in urban areas. Its aging population has a median age of 41.2 years, and a birth rate below the replacement of about 2.1 children per female and approximately 15% of the population is now made up of immigrant groups from Finland, Syria, Iraq, Poland, and Iran.

This country is a global leader in decarbonisation projects with a target to have a net zero economy by 2045. Sweden relies on imported oil and natural gas, but possesses important supplies of renewables such as biomass, hydropower, wind, and nuclear power. About 54% of its power requirements is from renewables. Its limited exploration is mostly done by foreign companies, with strict environmental and sustainability guidelines and regulations, and is well-known in the timber & forest industry as being amongst the most sustainable and well managed in world with the focus on responsible forest management and renewable energy.

Sweden has five oil refineries, dominated by the now Saudi-owned Preem, which evolved from Texaco and OK Petroleum, with their two refineries supplying about 80% of the country's requirements. Nynas, a well-known supplier of naphthenic specialty oils, also

has a refinery operation in Nynäshamn and a bitumen refinery in Gothenburg.

Employing about 140,000 people, the automotive industry plays a central role in Sweden's economy worth over \$20 billion pa. and contributes about 14% of the country's export income. Volvo remained the top selling brand in 2022, the XC40 being the most popular model, followed by Volkswagen and Kia, Toyota and BMW and other brands including Tesla which has shown significant sales.

In 2022 the Swedish Trafikanalysis report registered a total number of 4,980,543 cars, of which 197,709 were electric cars, 173,476 electric hybrids, and plug-in hybrids 239,531 models. In 2022, BEV's total market share was 51% and PHEV's 23%. Ten years is the average passenger car age, with 83% of the population owning at least one car.

HD trucks and buses totalled 990,000 units, with 269 electric/electric hybrid trucks, and 1062 electric/electric hybrid buses. Of the 608,871 commercial vehicles, 13,279 were electric/electric hybrid. Across all sectors, alternative powered vehicles show a steady increase being registered with EV's showing fastest growth. Volvo truck and bus, which has operations in more than 100 countries sold a total of nearly 95,000 trucks and 8,200 buses in 2020 with several manufacturing sites such as Brazil and the USA, and is a leader in the development of electric and autonomous trucks and buses with a goal of zero emissions by 2040, selling more than 5,000 electric trucks worldwide.

Scania, a subsidiary of the VW group employs about 52,000 people and in 2020 sold nearly 67,000 trucks and 5,400 buses. Their goal is to have zero emission by 2050 with strong focus on electric and hybrid trucks and buses, but also in alternative fuels such as biogas, and ethanol.

In 2020, the commercial HD truck market was dominated by Scania (45%) and Volvo (42%)

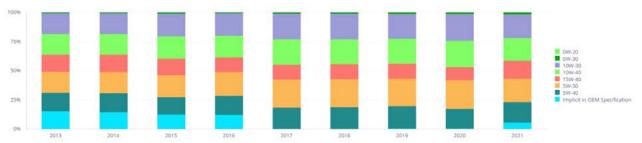
followed by Mercedes Benz (7.5%), with MAN 2,6%, and Iveco at 0.1%.

Whilst gasoline and diesel-powered ICEs still dominate sales, lubricants follow European and US trends by utilising the latest ACEA and API specifications as the base standard, whilst the majority now specify OEM branded products and specifications, as viewed in the attached charts of the listed top OEMs in both passenger cars and heavy-duty equipment.

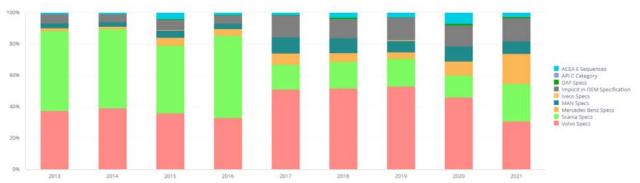
It will be interesting to see how Sweden's future continues to evolve, what with some brands like SAAB cars disappearing, but still making military equipment and weaponry, Volvo Cars being sold to Ford and subsequently Geely, and Scania becoming part of VW's Traton group after originally amalgamating and parting with SAAB in the last century.

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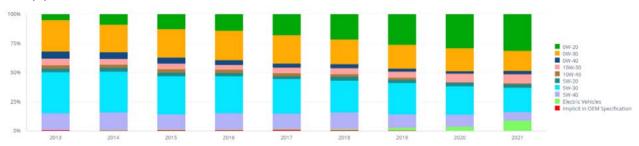
Most popular Viscosities for Heavy Trucks



OEM Lubdicant Specifications for Heavy Trucks



Most popular Viscosities for Cars & Vans



Top 12 Lubricant Specs for Cars & Vans

