





THE NEW IMO2020 REGULATIONS (VALID FROM JANUARY 2020)

The International Maritime Organization (IMO) issued new regulations to be applied from January 2020 for the reduction of marine pollution caused by shipping. By 2050, CO_2 emissions are to be reduced by 50%.

MAX. 0.5%

SULFUR CONTENT

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From January 1, 2020 all fleets must use fuel containing 0.5% or less sulfur.

3 POSSIBILITIES TO COMPLY WITH THE REGULATION





Filter system

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GREEN SHIPPING

The IMO2020 Emission Regulation means that ships will significantly reduce emissions on the high seas and in coastal areas, resulting in a much more environmentally friendly shipping.

THE POSITION OF DB SCHENKER

- DB Schenker informs its customers.
- DB Schenker actively participates in marine conservation activities (e.g. World Ocean's Day).

- DB Schenker cooperates with shipping companies that use liquid gases as fuel and are actively working to reduce CO_2 emissions.
- DB Schenker is committed to environmental protection.



DB Schenker provides information about the **IMO2020** – the Regulation for the **reduction of fuel emissions**.

WHAT IS IMO 2020?

The International Maritime Organization (IMO) has introduced a new fuel regulation that limits sulfur emissions to 0.5% from January 1, 2020. Thus, all seagoing vessels must reduce the sulfur dioxide by 85%.

WHAT INCLUDES THE REGULATION?

The IMO2020 Emission Regulation means that ships must significantly reduce their emissions both on the high seas and in coastal areas. This change affects the entire shipping industry. The Regulation makes shipping more environmentally friendly.

How ship operators comply with the IMO2020 Regulation?

SOLUTION OPTIONS:

A. USE OF FILTER SYSTEMS

Ship operators can use filter systems ("scrubbers") to filter pollutants from the exhaust gases of ships. A "scrubber" is a device that is used to clean the exhaust gases of a main engine of a ship.

B. USE OF FUELS NOT MANUFACTURED FROM PETROLEUM

An alternative to petroleum is Liquefied Natural Gas (LNG) for ships with corresponding specifications.

C. USE OF LOW-sulfur FUELS (VLSFO) OR MGO

Ship operators have the option to switch to VLSF (Very Low sulfur Fuel) or MGO (Marine Gas oil).

sulfur content of VLSF: 0.5% sulfur content of MGO: 0.1%

Can different fuel types be mixed in the tank?

It is not allowed to mix different fuel types. After the tanks have been cleaned, the operator must stick to the clean fuel.

NAME	VLSFO (Very Low sulfur Fuel)	MGO (Marine Gas oil)	Filter system	LNG LPG
ADVANTAGES	 Fuel with a low sulfur content of 0.5%. No large investments required It is seen as a short-term option to meet the conditions of IMO2020 	 Marine diesel oil contains only 0.1% sulfur. Operational experience available Worldwide available No large investments required 	■ Medium-term possibility	Most environmentally friendly solution
DISADVANTAGES	 Uncertainty about compatibility and stability Differences in the quality of mixtures per supplier High costs 	■ High costs	 Limited operational experience Pitch is lost on the ship Risk for future changing regulations 	 Tanks need a large area on board The infrastructure for refueling requires long-term planning Only economical with large ships because container space loss

Costs:

A. HOW IMO2020 AFFECTS SHIP OPERATORS?

In order to comply with Regulations, the industry will invest in low-sulfur fuels or in new technologies. In both cases, costs increase as compliant fuels and investment in new technologies are expensive.

B. WHAT IS THE LOW-SULFUR IMPACT?

In Northern Europe, North America and parts of Asia it is mandatory to use an even cleaner fuel with a sulfur content of 0.1%. This special fuel is more expensive and will be charged separately. The remaining areas require a maximum sulfur content of 0.5%.

Punishments:

A. WHAT HAPPENS IN CASE THE REGULATION IS NOT OBSERVED?

If the regulation is not implemented from January 1, 2020, fines, ship arrest or even imprisonment of the captain must be expected.

B. WILL A PERIOD OF GRACE BE GRANTED FROM JANUARY 1, 2020?

As of January 1, 2020 all seagoing vessels must comply without exception with the new rules, otherwise they will face punishments.

FAQ:

HOW DB SCHENKER PLANS IMPLEMENT THE IMO2020 REGULATION?

DB Schenker cooperates with shipping companies that actively work on CO_2 reduction and compliance with the IMO2020. Shipping companies are developing individual solutions, such as the use of new vessels with filter systems, gas systems and new fuels. Due to the technical innovations that have to be implemented by the shipping companies due to the IMO2020, higher prices are expected from the customer side. For this purpose, the freight rates are calculated by DB Schenker according to the BAF (Bunker Adjustment Formula) based on the latest price trend.

IF I, AS A CUSTOMER, HAVE A LITTLE SHIPPING QUANTITY, WILL I BE AFFECTED BY THE IMO2020?

The IMO2020 Regulation applies to all shipments. Likewise, the fuel consumption values (Trading Factors/Bunker Adjustment Factor BAF) apply to everyone.

IF REFINERIES ARE UNABLE TO PRODUCE SUFFICIENT LOW-SULFUR OIL, THE PRICES WILL INCREASE FURTHER?

It can not be excluded that refineries will not manage to produce the required quantities of low-sulfur oil in a timely manner, which may lead to a temporary increase in prices.

HOW SHIPPING COMPANIES PLAN TO IMPLEMENT THE IMO2020 REGULATION?

Some of the largest shipping companies in the world plan to equip their fleets with filter systems as a short-term solution. Furthermore, ships will switch to liquefied natural gas (LNG). The remaining ships will switch to fuel with a 0.5% sulfur content.

METHOD: BAF = fuel price per ton x trade factor





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