

Incoterms FOB: the Free On Board delivery term explained in practice

Incoterms FOB (Free On Board) is an international delivery term under which the seller loads the goods onto the vessel nominated by the buyer, and it is there that the transfer of costs and risk takes place. For technical buyers in the DACH region, FOB is primarily a frequently used alternative to EXW or CIF for sea transport from overseas. This article explains the structure, cost allocation, risks and practical application of the term.

Key facts

- FOB means: the seller delivers the goods on board the vessel nominated by the buyer at the agreed loading port.
- Risk and costs pass from the seller to the buyer upon loading onto the vessel.
- Freight, insurance and import formalities generally fall to the buyer's side; export customs formalities are handled by the seller.
- FOB is only suitable for sea transport on the vessel, not for container or multimodal transport.
- It is the task of the contracting parties to name the loading port precisely, e.g. "FOB Shanghai, Incoterms 2020".

Definition: Incoterms FOB

FOB (Free On Board) has been one of the classic sea freight terms since the first edition of the Incoterms and is governed in the Incoterms 2020 of the International Chamber of Commerce (ICC). The seller fulfils his delivery obligation as soon as the goods are loaded on board the vessel designated by the buyer at the agreed port. From that point in time, the buyer bears all costs and the risk of transport.

Core rule and risk transfer

Under the term, risk passes upon actual loading on board, not already at the quay or in the terminal. If the goods are damaged during loading, the risk still lies with the seller; from the moment they are on board, the buyer bears it. Buyers should keep this point in time in view, as it forms the basis for insurance cover, damage notifications and any later notice of defects.

- Risk transfer: upon loading on board
- Cost transfer: in principle the same point, unless otherwise agreed
- Previous Incoterm versions used different transfer points (e.g. ship's rail) – refer to the current version in the contract

Scope of application: sea and inland waterway transport

FOB is designed exclusively for waterborne transports in which the goods are physically brought on board a vessel. For container shipments, where the goods are often handed over in the terminal or container yard, the ICC recommends the FCA rule. In practice, FOB is nevertheless frequently used for container business – a point explored further in the section on risks.

Cost allocation: who pays what under FOB?

The term divides the obligations of both parties along the transport chain. The seller bears all costs up to loading on board, the buyer from that point. A clean cost breakdown is the basis for comparable tender prices and for the subsequent invoice approval workflow check.

Seller's obligations

The seller delivers commercially packaged, uncleared goods to the loading port, handles export clearance including the export customs declaration and pays terminal and loading costs up to delivery on board. He must notify the shipping date so that the buyer can organise freight and insurance. Packaging must withstand sea transport, which for machine components often requires agreements in the specification catalogue.

Buyer's obligations

The buyer charts or books the sea freight, bears the Bunker Adjustment Factor and, if applicable, Terminal Handling Charges at the destination port, takes out transport insurance and handles import clearance and import duties. In practice, buyers commission a freight forwarder or carrier for this and conclusively define the transport modalities in the procurement framework agreements.

FOB, FCA, CFR and CIF in comparison

For buyers, the choice of term determines who has control over freight, insurance and transit time. FOB belongs to the group of rules with a loading obligation, in which the buyer controls the main transport. The distinction from neighbouring terms is therefore central to cost control and delivery planning.

FOB versus FCA

FCA (Free Carrier) provides for handover to a carrier nominated by the buyer and fits container and multimodal transports. Under FCA, an agreed loading obligation of the seller can also apply. Those organising sea freight in conventional stowage or project cargo often fare better with FOB; those using containers should consider FCA in order to avoid discrepancies between risk transfer and physical handover in the terminal.

FOB versus CFR and CIF

Under CFR and CIF, the seller arranges and pays the sea freight, and under CIF additionally a minimum insurance. This shifts transport control and cost authority to the seller's side. Buyers who actively manage freight rates, exploit consolidation effects or want to secure tight delivery windows in a tender schedule often choose FOB – even though this increases their own coordination effort.

FOB in the procurement process: methods and approach

FOB should not be understood in isolation as a term, but as part of the logistics and price architecture of a procurement transaction. From the tender questionnaire to customs tariff classification, the term influences several process steps. A structured approach prevents subsequent price discussions and legal disputes.

Quotation and tender phase

In tenders, the buyer should specify the desired term precisely, including version and loading port, for example in the bidder information or the tender questionnaire. This makes offers comparable and

ensures no freight or handling costs are hidden in the price. It is also important to define whether a non-binding offer will later be firmed up on the same term basis.

Contract and pricing design

For long-term supply relationships, it is advisable to combine FOB prices with a price adjustment clause and, for currency risks, with an exchange rate clause. Since freight rates and port charges lie on the buyer's side, procurement framework agreements should regulate who concludes freight contracts and how volumes are called off as planned. For capacity planning, an ATP (available-to-promise) check supports the reliability of delivery commitments.

Key KPIs and control metrics in FOB transactions

Anyone who as a buyer bears transport responsibility needs metrics to make costs, on-time delivery and quality measurable. The following selection has proven itself in practice; guideline values must be calibrated according to industry.

Logistics and cost KPIs

Key metrics are the freight cost share of purchase value, on-time delivery against the agreed loading date, and the lead time from loading to goods receipt posting. For frequently used routes, it is worth looking at inventory turns, as long sea transit times tie up stock and raise the reorder point.

Supplier and quality KPIs

Complementary supplier-related metrics include the agreed supplier quality target or the rate of delayed clearances. Anyone wishing to evaluate FOB sources systematically combines these values with an ABC-XYZ analysis in order to steer critical parts with long lead times on a prioritised basis.

Risks and controls under Incoterms FOB

FOB shifts considerable responsibility onto the buyer: transport organisation, insurance cover and import clearance lie on his side. Misjudgements lead to coverage gaps, incorrect duty amounts or delays, which in turn trigger a notice of defects and elaborate claims management.

Typical sources of error

Common errors are a missing or incorrectly named loading port, stating an outdated Incoterm version, and using FOB for container transports although FCA would be the appropriate term. Unclear demarcation of local charges in the port of export also regularly leads to disputes, since terminal charges are traditionally borne by the buyer in some markets and by the seller in others.

Control instruments for buyers

Helpful are a standardised terms table in the ERP, fixed transport insurance cover for all FOB purchases and documented customs processes including customs tariff classification. Companies with their own customs status (AEO, Authorised Economic Operator) benefit from simplified procedures. Should damage occur in transit, seamless evidence documentation – such as measurement reports or a Certificate of Analysis for chemical materials – is a prerequisite for successful claims.

Current developments relating to FOB

Sea freight markets, digital freight bookings and tightened security requirements are changing the handling of classic sea freight terms. Buyers should regularly review their term strategy rather than agreeing FOB out of habit.

Containerisation and the preference for FCA

Since the majority of general cargo is transported in containers, experts increasingly recommend FCA instead of FOB, because risk transfer in reality takes place at the terminal rather than on board. Nevertheless, FOB remains a sensible choice for bulk cargo, general cargo in conventional stowage and project cargo. Before every start of production (SOP) of new components from overseas, the choice of term should be coordinated with logistics.

Volatility and hedging

Spot rate fluctuations, port congestion and geopolitical diversions hit the buyer directly under FOB. Countermeasures are fixed rates with freight forwarders over defined periods, buffer days in the tender schedule and, in individual cases, ramp-up management with several qualified sources. A pilot project with suppliers before series supply can also test transport and documentation quality at an early stage.

Typical metrics

On-time delivery at loading date: > 95 %

Proportion of on-time deliveries to the agreed loading date; guideline value, industry-dependent

Freight cost share of purchase value: typically 2–8 %

Often higher for overseas purchases; transparency provided by FOB

Transit lead time: guideline value 25–45 days

Loading to goods receipt on typical Asia routes; strongly route-dependent

Rate of damage cases in transit: < 1 %

Proportion of shipments with documented transport damage; indicator of packaging and insurance quality

Practical example

A medium-sized mechanical engineering company previously sourced castings from Asia on a CIF basis. The head of procurement wanted freight cost transparency and consolidation effects and switched future framework agreements in procurement to an FOB basis. Together with the logistics department, he defined loading ports, insurance lump sums and documentation obligations, including a Certificate of Analysis for machined die-cast components. Within one year, the visible freight cost share fell, and on-time delivery was managed via a new KPI board.

- Switch from CIF to FOB for conventional stowage, FCA for containerised goods
- Binding terms table including Incoterm version in all enquiries and purchase orders
- Fixed-rate agreements with two freight forwarders to hedge freight costs
- Integration of transit times into ATP checks and reorder point calculation

Conclusion

Incoterms FOB is an effective instrument for buyers to retain control over sea freight, insurance and

import clearance. The prerequisite is precise contract design: named port, correct Incoterm version, clearly regulated local charges. For container business, FCA should be carefully considered, as FOB is conceptually a weaker fit there. Anyone who combines FOB with solid KPIs, insurance cover and clear supplier communication turns the term from a formality into a genuine control instrument. Individual customs and tax questions must always be examined with experts on a case-by-case basis.

Frequently asked questions

What does Incoterms FOB mean?

FOB (Free On Board) is an international delivery term of the Incoterms 2020. The seller delivers the goods on board the vessel nominated by the buyer at the agreed port. From loading onwards, costs and risk pass to the buyer, who also organises freight, insurance and import clearance.

Who pays the freight under FOB?

The main freight is generally paid by the buyer, as he commissions the sea transport himself. The seller bears all costs up to loading on board, including export clearance. Deviating arrangements are possible but should be expressly recorded in the contract.

When does risk pass under FOB?

Risk passes upon loading of the goods on board the vessel at the named loading port. If the loading vessel damages the goods while hoisting them, the risk still lies with the seller. Once the goods are on board, the buyer bears the risk and should be covered by transport insurance.

Is FOB suitable for container transports?

The Incoterms 2020 recommend the FCA rule for container and multimodal transports, as containers are often handed over in the terminal rather than on board. FOB remains the more suitable choice for bulk cargo and conventional stowage. Anyone who nevertheless uses FOB for containers should specify the handover points and local charges precisely in the contract.

What are the differences between FOB and CIF?

Under CIF, the seller arranges and pays for the sea freight and a minimum transport insurance; nevertheless, risk passes earlier, upon loading on board. Under FOB, the buyer controls freight and insurance himself and thus has greater cost control. The choice depends on negotiating power, freight volume and the desired level of control.

How is FOB correctly named in the contract?

The correct notation is “FOB” plus the precisely named loading port plus the Incoterm version, for example “FOB Shenzhen, Incoterms 2020”. Without a precise port specification, there is potential for dispute over the place and time of risk transfer. The Incoterms are protected terms of the ICC and should always be cited with the year version.