

# TATA STEEL



## Case Study

### Linssen Yachts

**Project Name:** S235 for state-of-the-art motor yachts  
Tata Steel works closely with market leading Dutch boat builder

**Project:** steel displacement cruisers or slow-moving motor yachts

**Client:** Linssen Yachts

**Product:** S235



Rosewood and leather dashboard for elegant motor yachts.

# Linssen Yachts

Standard structural steels, such as Tata Steel's S235 product, can be the perfect option for customers who require materials with the highest-quality end-product finish. The S235 plates are particularly flat and tension-free, supporting Linssen Yachts to produce their market-leading displacement cruisers in series, with the flattest, smoothest hulls possible.

## Background

Tata Steel has an extensive product range of hot-rolled, direct-rolled, cold-rolled and metallic coated strip as well as plates and profiles, but to meet increasing customer demands, steel grades require constant development. In addition to advanced high-and higher-strength steels, as well as differentiated products developed specifically according to customer requirements, Tata Steel also offers a structural steel product range.

These steel grades can provide the perfect solution for customers producing advanced performance products, with particularly stringent material requirements. Dutch boat builder Linssen Yachts, for example, is using Tata Steel's structural steel S235 for the construction and production of its exclusive motor yachts.

## Boats with steel bodies

Linssen Yachts is the market leader in the segment of steel displacement cruisers, or slow-moving motor yachts. The company's elegant boats are consistently benchmarked as the "Range Rover" of the waterways, and are recognised for their elegance and excellent handling performance on inland water ways and coastal waters. The yachts can be individually tailored to meet customer requirements, to include the most advanced technologies and equipment, such as satellite navigation, air conditioning and automatic pilot systems.

From the beginning of their 65-year history on, the family business chose steel as its core material for the construction of its yachts. Steel displaces water better than any other material, securing Linssen Yachts' position as market leader in this sector. By their own admission, steel is the material they feel most at home with, and is the material around which they have built their expertise in designing and manufacturing their state-of-the-art motor yachts.

Linssen Yachts uses Tata Steel's hot-rolled S235 steel in a number of different sheet sizes and a variety of gauges. The structural steel is characterized by its high strength and good formability while remaining easily weldable. Two other factors are crucial for use in shipbuilding at Linssen Yachts: Tata Steel's S235 is particularly flat and tension-free.

## Production in series

These properties are essential for Linssen yachts' 'in series' production process – a unique approach in this sector. It takes several steps to create these state-of-the-art boats in Linssen's production hall. Tata Steel's supply chain partner MCB Stahl Service Center delivers Linssen's preferred product Tata Steel's S235 steel plates. These tension-free sheets are then expertly processed into components using a plasma-cutting machine, and welded together to form the hull, which is then blasted clean.

After various layers of filler and paint are applied, the hull is complete, but empty on the inside. At this point it is moved to one of three Logicam-production lines. This technology is a flow-production system in which the yachts receive the engine(s), tanks, cabling, electronics, floors, interior, furniture and windows. After each production phase the yachts move through the hall to the next stage, until the product is complete.

## Smooth bodies

Series production is a unique and deliberate choice, ensuring unparalleled quality. Linssen Yachts produces all the required modules in-house, which are then fitted in the yacht, ensuring the best quality control.

The combination of Tata Steel's consistent S235 steel and Linssen Yachts' singular production process guarantees extremely smooth hulls. The design of the boats, and the way they are made, also means the boat builder is able to use much less filler than rivals, resulting in a higher end-quality finish.

## Partners in innovation

Technical standards in the production at Linssen Yachts are very high; they are determined to deliver the best quality possible. The Product Development Team focuses on continuous product and process innovations, which are often incorporated into yacht building practice worldwide. Tata Steel works closely together with its customers in development partnership through the complete supply chain to provide specified technical support and material expertise.

“Partners like Tata Steel support us in moving closer to our objective: building dream yachts as unique as our customers. We take our customers’ pleasure extremely seriously. The only steel for us is Tata Steel. No other steel will do. It is the flattest and most tension-free sheet steel available on the market.”

Ruben Linssen, Managing Director at Linssen Yachts



Series production is a unique and deliberate choice. Linssen Yachts makes all their own modules and this step-by-step method ensures the high end-quality product for which they are recognised. Egbert Jansen, Tata Steel with Jac Linssen, Linssen Yachts.

**Summary**

The example of Linssen Yachts shows that Tata Steel's standard structural steels like the S235 can be the perfect option for customers who require materials with the highest-quality end-product finish. The particularly flat and tension-free nature of the company's S235 steel plates supports Linssen Yachts to produce their market-leading displacement cruisers in series, with the flattest, smoothest hulls possible.

Linssen Yachts is the market leader in the segment of steel displacement cruisers, or slow-moving motor yachts. Tata Steel's S235 fulfills Linssen's requirements for shipbuilding perfectly.



The hulls of Linssen's motor yachts are particularly smooth thanks to Tata Steel's S235.



Egbert Jansen, Manager Customer Technical Services, Tata Steel with Michel van de Winkel, Master Welder Linssen Yachts.

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