

## Essar Steel supplies steel plates to subsea tankages in North Sea

Essar Steel India has successfully supplied 9000T of high quality steel plates for a subsea tankage project being executed in the North Sea for Premier Oil, UK by Dry Docks World Dubai. The plates will be used in building oil & gas reservoirs in the sea bed at a depth of 130 metres below sea level at a temperature lower than (-40) degree Celsius.

The steel plates conform to NACE MR0175 and ISO 15156:2 2009 standard. The plates have been tested for Hydrogen Induced Cracks to ensure the ductility and impact resistance. This puts Essar Steel in the elite league of global steel makers who have developed such capabilities. The steel is designed to withstand harsh operating conditions and are maintenance-free with a life of over 50 years.

Commenting on this order, Dilip Oommen, CEO & MD, Essar Steel India said, "The successful execution of this order bears testimony to the capabilities of Essar Steel to manufacture steel conforming to highest international standards. Developing these grades is the result of our drive to continually excel in our efforts to become a well-known high quality steel producer".

Supplying steel to the Hydrocarbon sector is one of the main strengths of Essar Steel. It has consistently been able to supply various steel products to this sector conforming to API standards that include hot rolled coils, HSAW and LSAW pipes, plates etc. Essar Steel is only India steel manufacturer permitted by API to use their monogram on the plates.

Essar Steel has set up a plate mill with an annual capacity of 1.5 million tonnes capable of producing up to five-meter wide plates. Equipped with state-of-the-art



Under Construction of North Sea project

equipment and controls-along with cutting edge technology, the mill is the only one of its kind in the country capable of producing the widest plates conforming to global standards.

Its product basket includes rolled, normalized rolled, furnace normalized, direct quenched, and quenched and tempered (QT) plates with a thickness ranging from 5 to 150 mm and widths of up to 5 meters and 3m to 25m in length-all of which are import-substitution products. Accelerated Direct Cooling Operations (ADCO) provide a highly controllable, accurate and accelerated cooling capability that will ensure homogeneous cooling over the entire plate width, while Edge Masking gets a homogeneous temperature pattern over the width of the plate. This avoids over cooling and under cooling of plate edges.

**As we perceive the oil & gas (hydrocarbon) sector has been amongst Essar Steel's strengths. Discuss your products and overall capabilities.**

We primarily target three segments in hydrocarbon sector-offshore structures, pipe lines and reservoirs.

**Apart from this NACE MR0175-compliant steel, what are some other key import-substitute products?**

NACE MR0175 is a lab testing standard for Hydrogen Induced Cracking resistant steels. The steel are specified to be compliant to this standard based on the application criticality.

**On a different note, there are some steel products, e.g. electrical grade steel - CRGO steel, that India does not yet produce. What is your view and your general plans in this direction?**

CRGO electrical steel is a growing segment in India with

improvement in the watt loss standards and the general push to the electricity generation in the 12th Five year plan. We supply semi-processed electrical steel to the Indian market. We currently do not plan to enter the CRGO segment.

**Please discuss the big role that technology has played in Essar Steel's growth over the years. Are you working on some more import-substitution products?**

Technology has played a critical role in the growth of Essar Steel. We have three Iron making technologies, two steel making technologies and three hot rolling technologies. The multiple technologies help us to create new products and serve our customers better while improving our capability to meet market volatility. We also regularly create new products to substitute imported steels for various sectors including defence, yellow goods, oil & gas, boilers & pressure vessels, power sector etc. New product development is very intrinsic to steel industry sustainability. ■

# 'Steel plates for subsea tankage project has to remain corrosion free'



Related to the biggest achievement of Essar Steel's supply of steel plates to subsea tankages in North Sea (See Box), Ravi Singh, Senior Vice President & Head-Marketing, Essar Steel in an Email interaction with Lalitha Rao, has explained the corrosion resistant properties of the steel plates produced and the potential of such plates in future.

We understand that the steel plates made by Essar marks a defining moment not just for Essar Steel but also for the domestic steel industry. Tell us more on the development.

We are happy that we have joined the ranks of a few global steel producers who can make this grade of steel plates. This has opened up a new market for us.

In simple terms, please discuss the technical aspects of the steel plates in question. In particular, elaborate on the corrosion-resistant properties.

Since these steel plates are being used under sea, it has to remain corrosion free for a period of at least 50 years. This product has to conform National Association of Corrosion Engineers, USA.

How do you see the scope for more such export orders in future?

This has opened up a new market for us. We see a great potential for this product since deep sea exploration is gaining ground in view of the high crude prices. We can also develop steel products which find applications in similar conditions.

Do you see demand for such plates in India's hydrocarbon sector?

The market for such steel plates is opening up in India since this is an import substitute product.

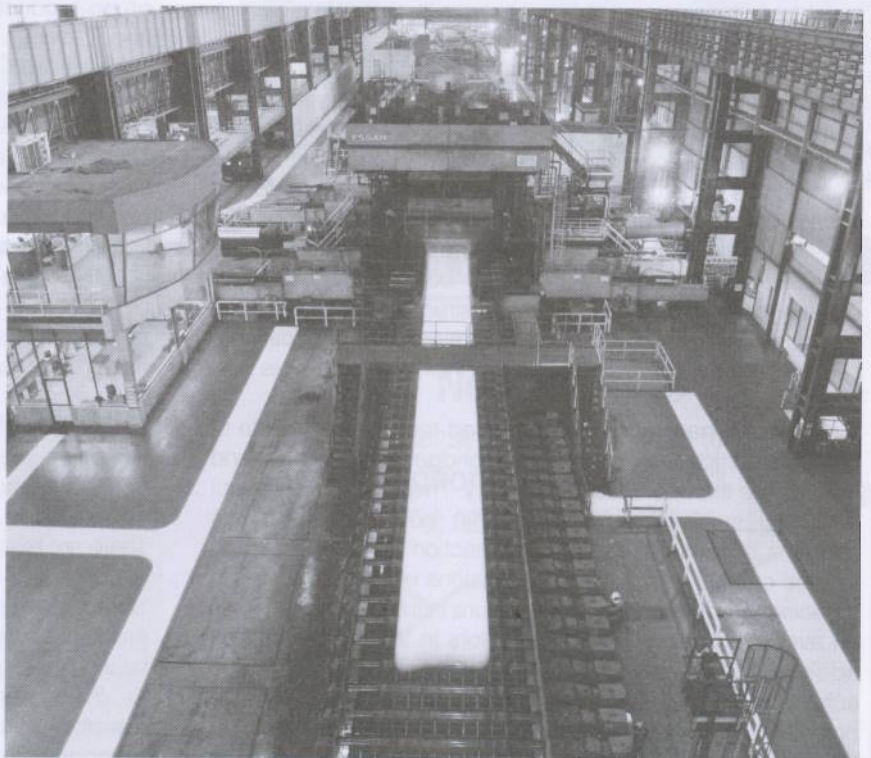


Plate Mill at Essar's Steel complex at Hazira, India