

SSAB's heavy plate mill in Oxelösund, Sweden, has been running with ABB's Millmate Roll Force System for more than a decade

The ABB circular load cells are installed under the mill screw and they have been running very well for many years of operation. We are very satisfied with the performance of the Millmate Roll Force systems.



SSAB Oxelösund AB is a member of the SSAB Swedish Steel Group and is the largest Nordic manufacturer of heavy steel plate. The company is also a world leader in the specialist field of quenched and tempered steels, and produces well-known brand names such as HARDOX and WELDOX.

SSAB Oxelösund is the only steelwork in Sweden to have an entire production line stretching from raw materials to rolled plate. SSAB produces around 600 ktons heavy plate (2006), and 90 percent of the production is exported. Germany is the biggest single export market. SSAB has extensive stocks in more than 40 countries around the world. (For more information, visit www.ssab.com)

What has been achieved?

We ask Mr. Thord Thorslund, Production Manager Plate Rolling Department, about the Millmate Roll Force System installation:

"There have been no problems with the ABB load cells since they were installed 12 years ago. At that time the SSAB plate mill was considered the most high-powered rolling mill in the world. Over the years more than 10 million passes have been rolled and every pass with a roll force of 10,000 tons.

At SSAB we have a lot of ABB equipment installed and this was also a reason for choosing Pressductor load cells. For us it is very important to have confidence in suppliers of vital production equipment. At SSAB we do not have all the knowledge and competence in-house and we feel secure working with ABB as a supplier."

Mr. Hans Devell, maintenance Technician Heavy Plate Mill and Mr. Bo Persson, Maintenance Department Rolling Mill concordantly express their opinion about the Millmate Roll Force System installation:

"The ABB load cells have been running very well without problems for all these years. The most important issue for us is that the load cells have stable and equal measurements on both drive and operator sides. And the ABB Pressductor load cells have fulfilled the requirements.

"There have been no problems with the load cells since they were installed 12 years ago"



In order to carry through pro-active maintenance we will have the present load cells checked and serviced to avoid possible future problems. We are planning on having two sets of load cells in order to keep the standstill time to an absolute minimum level.

We have big confidence in ABB as a supplier of load cells. Also by knowing that technical competence and expertise is just a phone call away we feel very secure working with ABB.”

Supplied equipment

ABB Force Measurement has supplied the following equipment to SSAB's heavy plate mill in Oxelösund, Sweden:

- One Millmate Roll Force System
- Two circular load cells, 51.5 MN (PFVL 141C-51.5 MN)



Mr. Gunnar Aggefors, electrician, at SSAB Oxelösund.

Mill data		4-hi heavy plate mill, SMS
Rolled material		Heavy plate
Tonnage		650 000 tons/year
Slab thickness min./max.		200 – 290 mm
Roll diameter work rolls		1060 – 960 mm
Roll diameter backup rolls		2150 – 1950 mm
Barrel length work rolls		3700 mm (totally 4000 mm)
Barrel length backup rolls		3600 mm
Water pressure descaling		110 bars
Max. rolling force		10 000 tons
Power	Continuous	2 x 11.2 MW
	Mom.	2 x 31.3 MW
Edgers roll diameters		850 – 775 mm
Max. edging force		600 tons
Edging power continuous		2 x 1500 kW
Plate qualities		HARDOX, WELDOX, TOOLOX, ARMOX



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