

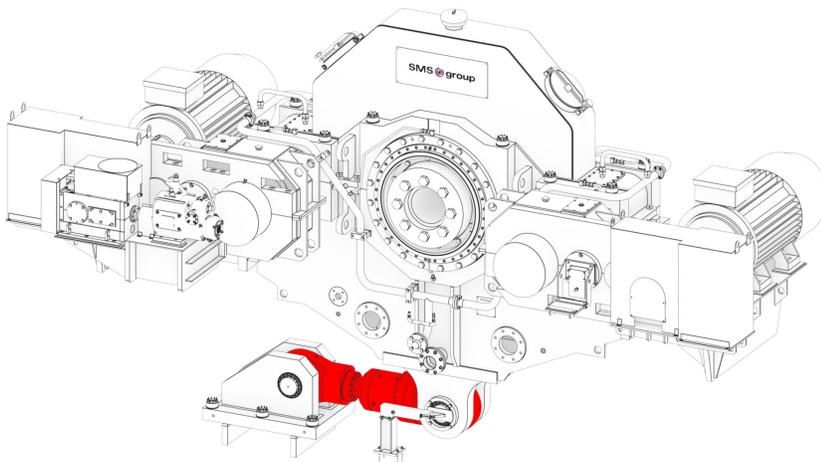
## PRESS RELEASE

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Düsseldorf, July 09, 2018

# Successful modernization of AOD converter at S?AH CSS

Reduced maintenance costs thanks to SMS group  
torque retainer on converter tilt drive



Converter tilt drive with SMS group torque retainer.

The 100-ton AOD converter at the S?AH CSS stainless steel mill in Changwon, South Korea, was successfully re-commissioned in March 2018, after installation of an electro-hydraulic torque retainer from SMS group.

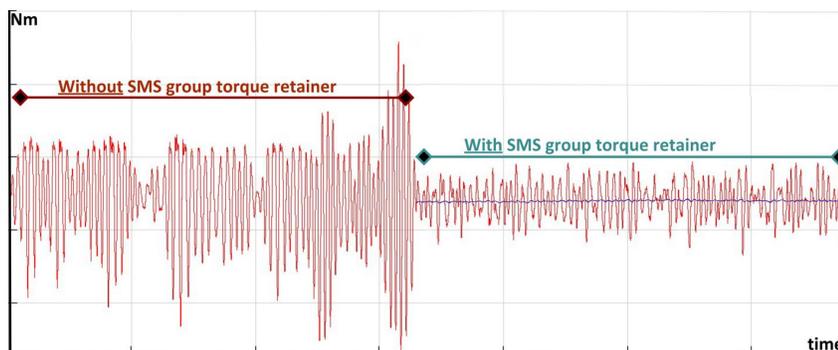
The purpose of the modernization was to minimize the destructive forces acting on the gears, bearings and converter car during gas injection.

The scope of supply of SMS group comprised an electro-hydraulic torque retainer including electrical equipment and automation systems as well as the supervision of erection and commissioning.

The installation of the torque retainer was performed during a scheduled maintenance standstill and completed within ten days, including cold and hot commissioning. Hot commissioning even took place two days ahead of schedule under regular production conditions. The guaranteed values were fully reached. Thanks to the new electro-hydraulic torque retainer from SMS group, the dynamic loads on the entire converter equipment have been significantly reduced. This is the result of the successful cooperation between the teams from S?AH and SMS group.

Seunghoon Lee, General Manager Steelmaking Facility Team: “The new torque retainer from SMS group has significantly reduced the vibrations of the AOD converter. We experience the benefits of this modernization every day. Maintenance costs will be reduced significantly. We are very satisfied.”

S?AH Changwon Integrated Special Steel produces stainless steel, tool steel and carbon steel at a production volume of 1.2 million tons per year. The produced high-tech steel grades are used in a wide range of applications, for example in vehicles, machinery, aircrafts, nuclear power plants, shipbuilding and electronics.



Vibrations of the AOD converter measured over time. Left: without torque retainer, right: with SMS group torque retainer.

*SMS group is a group of companies internationally active in plant construction and mechanical engineering for the steel and nonferrous metals industry. It has some 13,500 employees who generate worldwide sales of more than EUR 3 billion. The sole owner of the holding company SMS GmbH is the Familie Weiss Foundation.*