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2008 TITANIUM MARKET TRENDS

The forecast that emerged from Titanium 2008, the 24th annual conference and exhibition held Sept. 21-24 at Caesars Palace, Las Vegas, was tempered optimism for global titanium industry business conditions. The International Titanium Association (Web site: www.titanium.org), Broomfield, CO, sponsors the event.

Projections by conference speakers for the titanium industry were compiled just prior to the full realization of the unfolding global economic meltdown, which creates a considerable degree of uncertainty in all business sectors and near-term market forecasts.

While overall global demand for titanium is expected to remain solid for non-aerospace sectors, a mild leveling off in demand for titanium's bellwether commercial aerospace market is expected in 2009 and 2010, due mainly to anticipated delays in the Boeing 787 Dreamliner and Airbus A 350 and A 380 programs. However, even though industry observers forecasted delays of up to 20 months for the full commercial rollout of these titanium-intensive jetliners, overall business in the commercial aerospace sector should remain healthy, bolstered by backlogs of more than 7,500 jets (a level of reported bookings as of August 2008). Many of those bookings come from Indian and Asian airlines.

Titanium is well established as a material of choice for aerospace structural parts and engine components. World titanium demand for commercial and military airframes is slated to reach 36,290 metric tonnes next year, climbing to 65,500 metric tonnes by 2015.

Non-aerospace markets, such as automotive, biomedical, architecture and consumer products, represent 13,610 metric tonnes of annual titanium demand. Titanium demand remains solid in non-aerospace industrial markets such as tube and shell heat exchangers (currently at 8,800 metric tonnes increasing to 10,400 metric tonnes by 2015) and plate heat exchangers (6,100 metric tonnes to 10,400 metric tonnes).

Not surprisingly, conference attendees showed considerable interest in the rapidly emerging Chinese titanium industry. The 12 major titanium sponge producers in China had an output of 45,200 metric tonnes last year, a total likely to reach 55,000 metric tonnes this year.

World titanium sponge supply--a precursor to actual metal production--was estimated at 180,000 metric tonnes in 2008 and projected to reach 240,000 metric tonnes in 2010. Russian sponge production is estimated to hit 36,000 metric tonnes in 2008, ramping up to just over 40,000 metric tonnes by 2010 and approaching 50,000 metric tonnes by 2012. Kazakhstan sponge output will be 26,000 metric tonnes this year, slightly higher than 2007. Sponge production in Ukraine is estimated at 10,000 metric tonnes this year and could reach 12,000 metric tonnes by 2010.

North American annual sponge capacity will register 40,000 metric tonnes by 2010, while Japanese sponge production capacity is expected to hit 70,000 metric tonnes by 2010.

Current primary global industrial titanium scrap consumption is estimated at just over 30,000 metric tonnes, a level that is projected to rise to 40,000 metric tonnes by 2012. The world's number-one generator of titanium scrap is the United States, with yearly levels of about 27,000 metric tonnes. Europe follows, producing 14,500 metric tonnes of scrap per year.

Ms. Abkowitz, having pioneered these diverse applications in industrial and biomedical applications is also overseeing the development of this material for military hardware. In these applications the wear resistant titanium structures would be replacing steel components permitting the achievement of lightweight goals for advanced military vehicles. Additional CermeTi® applications being pursued range from automotive valves and connecting rods to consumer products such as lightweight hockey skate blades

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