



SFSA CASTEEL REPORTER

Steel Founders' Society of America

a monthly publication
serving SFSA steel casting industry Members

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November — 2010

Casteel Commentary

This month's Casteel Commentary considers the coming volatility and possible shortages of raw materials, energy and scrap. While steel casting demand will increase as these commodities will be needed and prices will rise, we as producers will need to secure sources if we are to produce the products needed. Steel foundries are a small part of the market and should be able to obtain their requirements but will need to be preferred customers to assure their access to these important supplies.

Men Available

A1247 holds a MS in Metallurgical Engineering, a BS in Mechanical Engineering, has significant experience leading experiments. Experience in design of steel investment casting molds. Is proficient with MAGMA and CAD.

A1248 has significant experience in foundry management including 6 Sigma, Lean, Kaizen, 5S, Global Sourcing and eBusiness. Holds a BS in Metallurgical Engineering.

Technical & Operating Conference

SFSA T&O Conference- the SFSA T&O conference is set to be an outstanding event. We expect over 200 attendees at the Conference. It is not too late to register. Registration information along with an agenda and program are posted on the SFSA website.

Future Leaders

Making the transition as one generation retires and a new generation takes on new job roles can impact the success of your business. Every foundry has new hires or other current candidates that will step into greater roles in either the technical or operations side of the foundry. Future Leaders is a SFSA committee that can help facilitate these transitions through industry networking and educational programs.

How much would you pay for an employee to have previous steel foundry expertise? Attending a SFSA Future Leaders meeting will build this knowledge base and is free to all members. Every company should make the investment by having at least one candidate involved in this activity.

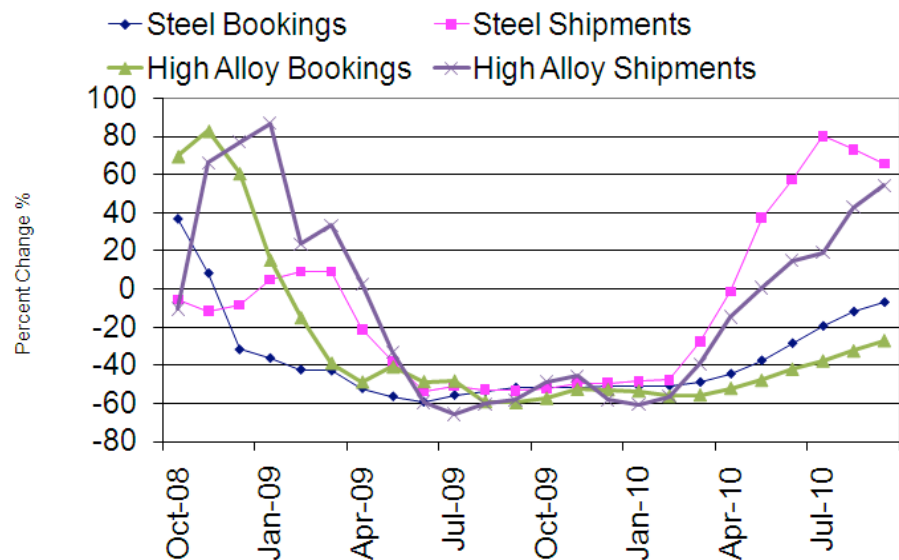
At our last meeting, attendees visited two steel foundries, received an overview of Sivyer's Odyssey ERP software and paperless manufacturing, participated in roundtable discussions and networking, learned about a rigging case study, gained insight on the University of Iowa's R&D portfolio, and a learned about the history and best concepts for rigging a casting – all in a day and a half! To get your company prepared for the future, it is time to get someone involved in Future Leaders today – contact David Poweleit at poweleit@sfsa.org.

Market News

Market conditions continued to improve for steel foundries in September. Shipments are up over 50% for steel and stainless steel casting according to our median three month average comparing this year to last year. Bookings are still lagging shipments and lagging the level of a year ago, suggesting

continued strong growth in demand. While shipments up 50% is a strong positive, it is important to note that this is an improvement after being down more than 50% the prior year. When we fall 50% from a high year and then recover 50% from a low year, we are still only at 75% of the high year.

Backlogs for steel castings remain steady at about 8 weeks showing improved business demand, up from less than 4 a year ago, but not straining our current production capability.



Iron and steel castings reported by the Department of Commerce Census Data shows a burst of activity late last year with the cash for clunkers followed by a slide in demand into summer after those incentives lapsed and now with a modest improvement. Currently combined iron and steel casting shipments are up about 15% off of the lows and down still 35% from the highs two years ago. Iron casting production dominates this statistic. Iron castings are less volatile since they are more tied to consumer activity. They are also lagging steel since they are involved in automotive and construction markets. With significant closures and consolidations, many iron foundries are busy and they may be facing capacity shortfalls as the economy recovers.

Steel mill shipments remain stable around 7 million tons a month for an annual production of around 85 million tons. The typical production year for steel in the US is slightly over 100 million tons. The steel mills expect a slow recovery and to operate below capacity for at least another full year.

Nondefense capital goods new orders minus airplanes has recovered most of the ground lost during the recession. The high mark for this indicator was \$63 billion and the current month's orders are at \$60 billion after falling to as low as \$50 billion in the middle of last year. Inventory levels spiked during the recession to twice the shipment or order levels early last year but have since been reduced to about 1.65 of the current activity levels. So the outlook for capital goods is steady slow growth without excess inventory remaining to be liquidated.

One added note, EPA (Economic Planning Associates) has projected 13,500 freight car deliveries this year and increased their forecast from 19,800 to 22,500 or an increase of 67% in freight car deliveries. This would raise the steel castings required by 45,000 tons or total production for 2011 by more than 5% overall.

Casteel Commentary

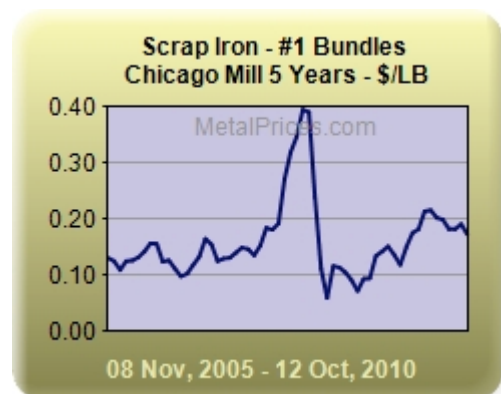
Last month, the Commentary projected that the demand for steel castings should see growth and strong demand for most of the next decade. For steel castings "...the global demand should increase as the developing countries invest in their needed infrastructure. It would not be unreasonable to assume that the per capita requirement for steel castings would grow to 2 kg per person by the year 2020. In addition to the growth in per capita consumption, the population will also continue to grow. The total world production of steel castings in 2008 was around 10 million tons. Assuming the per capita increase and rise in population, the requirement for steel castings in 2020 should rise to 15 million tons."

An estimate not given was made for all steel products including steel mill products. The apparent steel consumption for 2010 for this works out for the world is projected to be 1,313.8 million metric tons (WSD Iron and Steel Technology November 2010 p23). The 2010 world population is estimated to be 6.909 billion for an average world consumption of steel of 190 kg per capita or 420 lbs. If the world consumption increases to 250 kg per capita because of development in economically growing regions and population increases as expected to 7.675 billion as expected by the UN, steel consumption would grow to 1,919 million tons in 2020. The WSD projection is for 1,859 million tons. This suggests that the projections given last month are reasonable estimates of steel casting demand in 2020. Another approach is to project that the steel casting demand will remain about 1% of the total steel demand projecting 18 million tons of worldwide demand for 2020. If economic growth is stable and population growth continues, steel production will reach new levels in the next decade.



The challenge of supplying the growing world economy will become increasingly challenging as populations grow and prosper. This will stimulate the demand for steel castings as the mines and wells are located in more difficult environments and are processing less rich deposits to meet the world's requirements for commodities and energy. It will also mean that steel foundries will need to deal with shortages of raw materials and volatile energy markets. The rising global demand for steel with the rapidly growing dependence on EAF scrap production means steel foundries will need to secure scrap sources to remain in business.

The consumption of steel for economic and population growth from 2010 to 2020 is expected to be at a 3.53% growth rate. Production of all steel products is expected to grow faster at 3.59%. Scrap requirements will not grow as fast, 3.38%. Obsolete scrap should be available growing at 3.99%. The problem will be with new scrap which is expected to grow at only 2.86% during that time. Steel foundries should not have any fundamental problems obtaining scrap since the total demand for scrap by steel foundries is small and they are able to pay higher prices. But it will be critical that steel foundries develop good sources and relationships with scrap suppliers if they expect to cope with future market conditions.



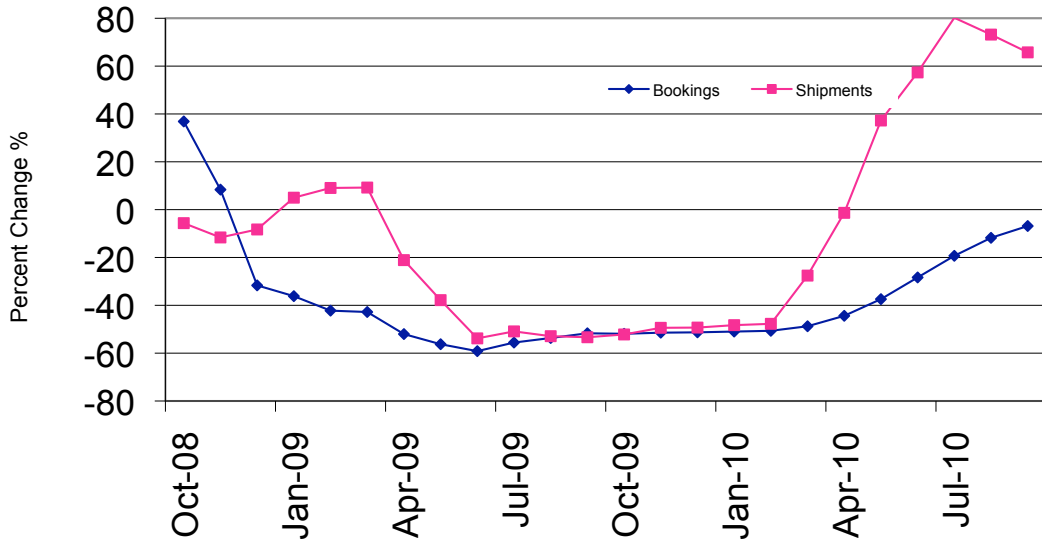
China of course is a big unknown. They have greatly increased their production of steel products in the past decade. If they continue to grow beyond their own requirements this could lead to an excess of capacity and a spike in demand. It is quite possible in the next couple year to see a severe shortage. The low level of steel production and consumption in 2008-2010 means that there will be a coming shortage of steel scrap available. The developing countries do not have existing steel scrap and will need to import and develop steel sources. Expanding the steel scrap base for future operations will require new iron supplies but in the interim, steel scrap could become a precious and scarce commodity.

Raymond Monroe

**STEEL FOUNDERS' SOCIETY OF AMERICA
BUSINESS REPORT**

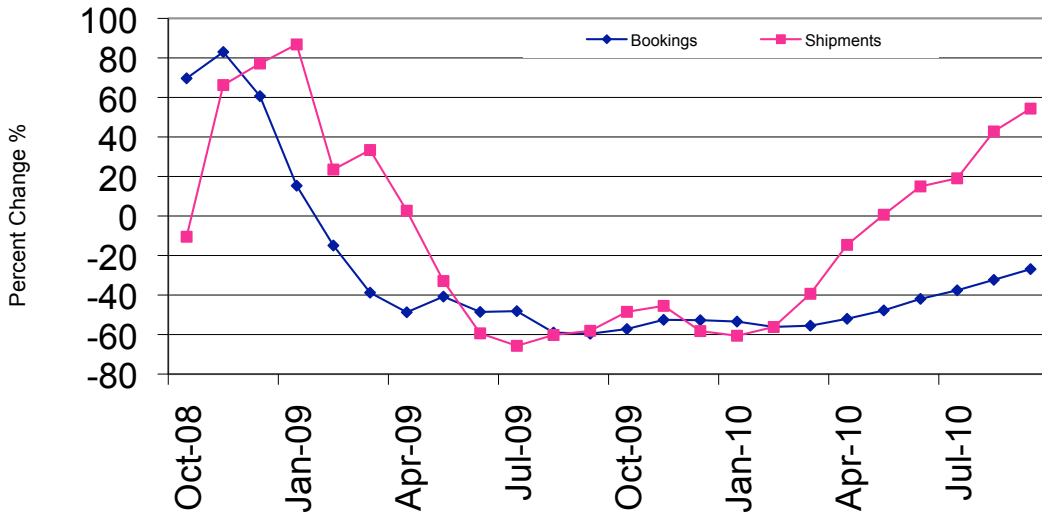
SFSA Trend Cards (%-12 mos. Ago)	12 Mo Avg	3 Mo Avg	Sep	Aug
Carbon & Low Alloy				
Shipments	11.6	65.8	52.0	46.8
Bookings	-33.8	-6.8	-3.4	-6.8
Backlog (wks)	7.9	7.8	8.5	8.0
High Alloy				
Shipments	-7.1	54.4	48.1	77.7
Bookings	-44.3	-26.9	-21.7	-26.0
Backlog (wks)	6.1	8.0	8.5	8.5
Department of Commerce Census Data				
Iron & Steel Foundries (million \$)				
Shipments	1,249.5	1,240.7	1,246	1,244
New Orders	1,264.8	1,246.0	1,238	1,281
Inventories	1,971.8	1,810.0	1,805	1,820
Nondefense Capital Goods (billion \$)				
Shipments	61.0	65.4	65.2	65.5
New Orders	60.9	67.8	72.4	65.6
Inventories	130.6	131.3	133.4	130.9
Nondefense Capital Goods less Aircraft (billion \$)				
Shipments	57.0	60.7	61.3	60.9
New Orders	57.4	62.0	62.9	63.0
Inventories	98.2	101.9	102.5	101.8
Inventory/Orders		1.64	1.63	1.62
Inventory/Shipments		1.68	1.67	1.67
Orders/Shipments		1.02	1.03	1.04
American Iron and Steel Institute				
Raw Steel Shipments (million net tons)	6.7	6.9	7.1	7.2

Carbon & Low Alloy Casting Market Trends



SFSA Postcards

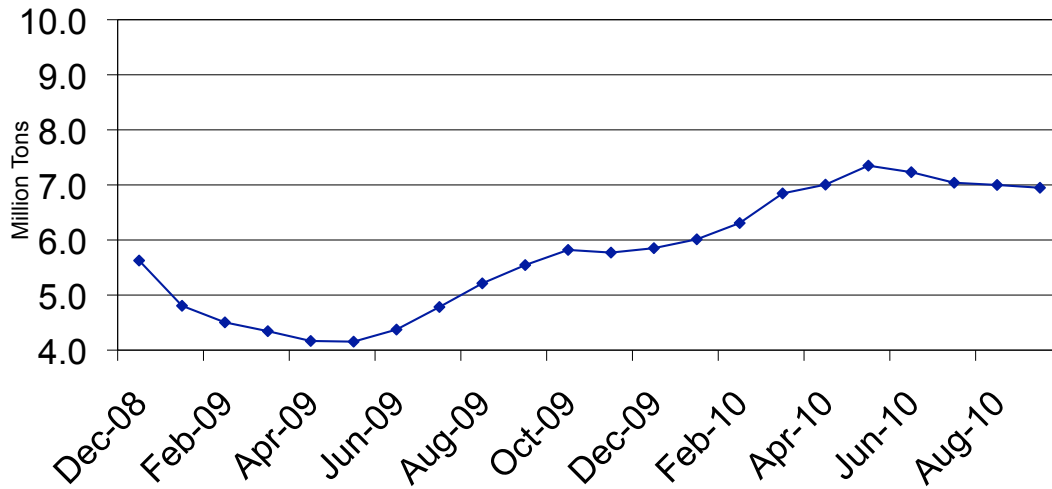
High Alloy Casting Market Trends



SFSA Postcards

Raw Steel Shipments

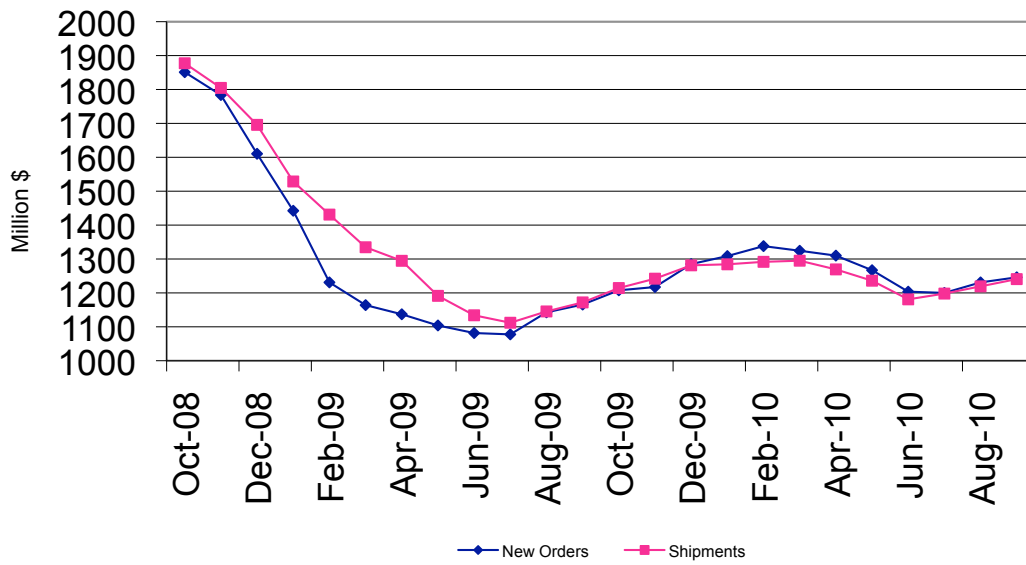
3 month average



AISI Data

Iron and Steel Castings

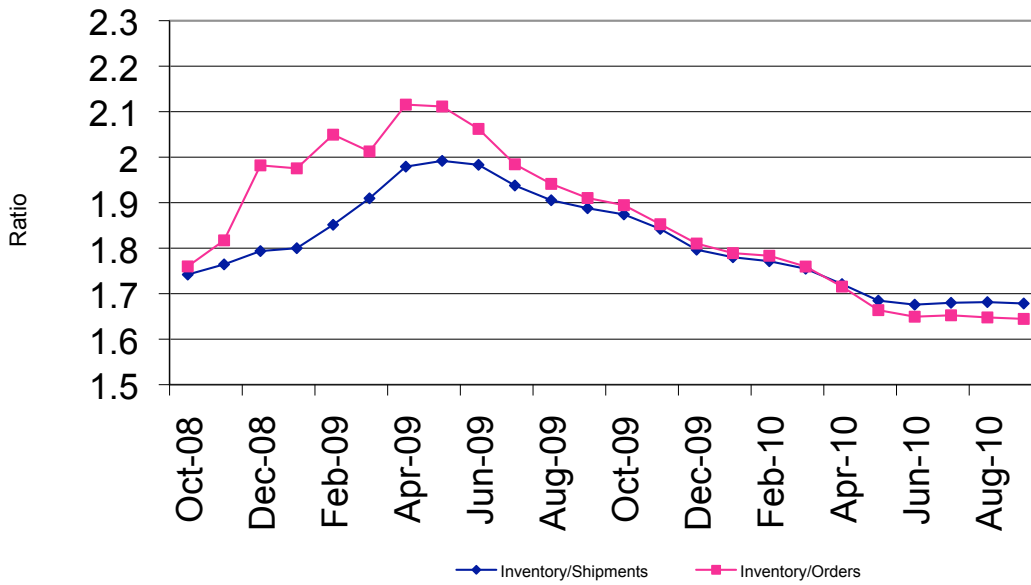
3 month average



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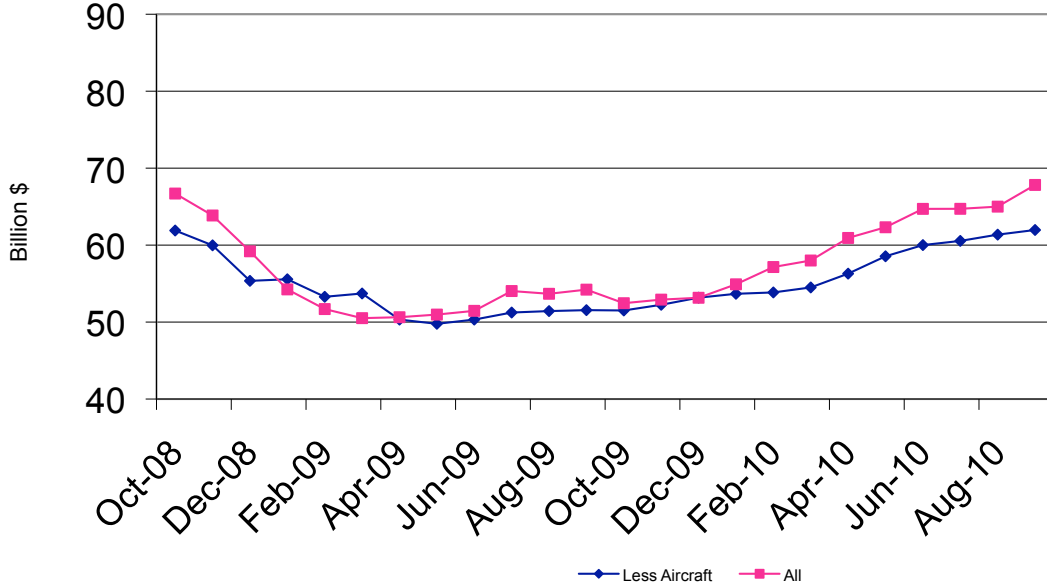
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Nondefense Capital Goods less Aircraft 3 month average



Department of Commerce

Nondefense Capital Goods New Orders 3 month average



Department of Commerce