



SFSA CASTEEL REPORTER

Steel Founders' Society of America

a monthly publication
serving SFSA steel casting industry Members

780 McArdle Drive Unit G, Crystal Lake IL 60014
815-455-8240 Fax: 815-455-8241
www.sfsa.org

September — 2007

Casteel Commentary Highlights:

Large customers and large suppliers squeeze our small and medium size industry. We need to recognize the structure of our marketplace. This will mean negotiating preferential treatment on supply with our suppliers and achieving adequate price realization with our large customers. Our future requires that we make our industry a good place to invest with an adequate return on capital.

Annual Meeting

SFSA Annual Meeting 2007 in Alaska was a good success. The presentations from the meeting are available here, <http://www.sfsa.org/sfsa/annmtg>. We had updates on supplies and materials like scrap, ferroalloys, and binders. Our Annual Forecast for 2008 was presented. The political climate was discussed. In all it was a fun event. One of the highlights was the awarding to Jim Cooke the Frederick A. Lorenz Metal for his leadership and contribution to the industry. His paper on metal loss presented at last year's Technical & Operating Conference changed the way many in our industry operated.

Member Survey

Our latest survey concerned employee retention. Members who provided their input got a complete compilation of responses. For all members, here is a summary of the results.

What are the top 5 reasons ranked by importance of employees leaving employment from steel foundries?

Wages/better Job	17
Difficult work	13
Cause	7
Attendance	6
Retirement/death	4
Acceptance by coworkers	3
Transportation	3
Benefits	2
Shift Work	2
Drugs/Alcohol	1
Incarceration	1
Disabled	1
Only foundry in town	1

What new ideas are being tested to improve employee retention in the steel foundry industry?

- better screening
- buddying
- more flexibility in hours or attendance
- better training
- safety emphasis
- better wages
- targeted bonuses

Innovation

Exposure to oxygen is the source of most of the inclusions that we find. I know that we have advocated shrouds and filters and other remedies but we as an industry still are not as disciplined in reducing the incident of inclusions as we should be. Part of this is a flawed approach that is common, the quest for the magical silver bullet. Significant improvements to the level of inclusions are available by improving from the top down rather than the bottom up. What do I mean by this?

Doing six sigma root cause analysis can usefully identify controlling factors that need controlled to improve quality. This analysis of my current practices with remediation by process improvement is very much a bottom up process. We can on the other hand improve from the top down. If I deoxidize the slag in the furnace, I reduce the oxygen available to the steel and should fundamentally reduce inclusions. In fact I can look at my steel handling process and identify the sources of oxygen available. Then I can begin to remove or reduce the contamination by oxygen in process. Using lower silicon materials will reduce the oxygen available by basic melting or higher alumina ladle linings. Lower melting and tap temperatures reduce oxygen. Implementing modified practices to reduce oxygen contamination of the steel can be done from the top down.

Specifications

Six Sigma programs are still a leading way that quality metrics are discussed. One challenge for steel casting producers is the inability of NDE measures to pass simple gage repeatability and reproducibility requirements. Not only are NDE methods too subjective and qualitative, visual inspection is as well. If our evaluation standards are not able to measure then we will not be capable of meeting the six sigma standard. The statistical measures and analytical tools of six sigma are rich and

valuable. The goal of six sigma quality is unattainable without improved standards.

It is not clear in addition, that six sigma is a good measure of processes of limited volume of production. When the total production per year is less than 100,000, it is difficult to see how six sigma is meaningful. One final observation is that six sigma in higher production environments is often achieved by adding production steps. When added steps are needed to succeed at quality requirements, steps that would normally be rework are integrated into the process to ensure quality. In steel castings this could be done for instance by making rough machining, production welding and final machining part of the process flow.

Imported Product Safety

Attached to this newsletter, and available on the Casteel Reporter web page is a copy of Docket No. 2007N-0330 from the Presidential Interagency Working Group on Public Safety. Currently, if an imported product fails, causing injury and the part is non-compliant, there may be no recourse against the manufacturer. This document talks about requiring importers to provide resources in the case of failure and liability. Please send comments on this to Raymond Monroe via email to monroe@sfsa.org.

Proposed Area Source Rule for Iron and Steel Foundries

Available on the Casteel Reporter web page is a copy of the proposed EPA rule – please send your comments on this rule to Raymond Monroe via email to monroe@sfsa.org.

Market News

Shipments have remained steady while orders are declining slightly allowing many plants to reduce hours and backlog. Order activity is down but still strong enough to suggest a good business environment. High alloy products continue to see strong demand.

The near term outlook for the economy is uncertain. Manufacturing indexes are up but subprime lending problems and slowing consumer activity draw into question a significant improvement before the end of the year. The current talk is for declining interest rates to stave off a more precipitous decline in the market and in lending institutions. Commodity prices remain high. This continues to stimulate capital equipment purchases requiring steel

castings. Steel shipments have improved and pricing is firming. The demand for iron castings has seen some recovery. Capital goods orders remain relatively strong.

The market is likely to continue to remain active with a modest slowdown in incoming orders. Our forecast is posted and anticipates a relatively flat future demand. Other economic news is available in the SteelGuru document on the Casteel Reporter web page.

Casteel Commentary

One of the significant challenges we face as steel foundries is structural. Many of our suppliers and customers are local and similar in size to our own operation. This close match in size and location makes communications, negotiations, and expectations compatible. This is not true of some of the more important customers and suppliers. In many instances we are caught between large companies in our supply chain, competing with large industries for product to meet the requirements of large customers. This supply mismatch is a challenge and an opportunity for us.

Our large customers based on their purchasing experience expect us to manage our costs through aggressive purchasing practices. Unfortunately for them and us we are not large enough customers to have any perceptible leverage in negotiating. If we look at melting stock issues like scrap and ferroalloys, steel castings globally need about 9 million tons of feedstock a year. This compares with over 60 million tons for iron foundries and over 1 trillion tons for steel makers. Even with integrated mills, the market for scrap is dominated by steel makers with a small presence of iron foundries. Steel casting producers are insignificant nationally or globally. We can through good commercial arrangements and with appropriate premiums and payment records become preferred customers but we will not get any significant discounts in this market place. We must instead look to profitably recovering the full cost of production and recognize that with our higher value added and more restrictive requirements we will be at a disadvantage to larger users.

The situation is not as bad but similar in foundry supplies like binders or sand. Steel foundries represent less than 10% of casting production. Some of the suppliers are large companies that see the bulk foundry production for automotive and consumers as the big market opportunities. Like scrap and alloys, they are happy to profitably fill our niche as long as we pay on time and with an appropriate pricing based on market factors. Like scrap, even the largest steel foundries are not in a position to demand concessions from suppliers but must find ways to operate profitably.

In markets that will likely continue to experience tight supplies, our emphasis must be on becoming preferred customers. Short-term advantages taken of struggling suppliers will likely lead to unfortunate futures. Fortunately, the global steel casting industry is all in the same situation so apart from market distorting trade practices and subsidies, we all need to fully and profitably recover the cost of our inputs.

Our large global customers are accustomed to an era of excess supply where no supplier could gain significant price realization, there were stranded plants being operated as cash flow businesses with unsustainable pricing policies, and our suppliers and supplies had excess capacity. Survival meant limiting staff and investment and squeezing out cost. Many

of our customers are experiencing the boom of capital equipment demand based on increases in demand and prices for commodities without realizing that these increases will impact their suppliers. After decades of excess supply we need to reinvest and re-staff based on significant improvements in profitability. While we need to continue to improve our cost structure, after decades of survival based on cost reductions, it is naïve to think that we will contain the marketplace increases of supply costs through production efficiencies.

Increases in demand cause us to increase staff at all levels. This increase inevitably leads to quality issues. With improved productivity in stable markets, we could retain the best and most productive workers. Hiring added staff to dramatically increase production in a labor-intensive industry with historically low unemployment means adding less qualified workers that are tough to retain. So increases in production are accompanied by challenges in quality.

Our large customers looking to grow when our industry is limited in capacity wonders if we are capable. They need our expertise and involvement to meet their global requirements. Unfortunately, without recognizing the needs for steel foundries to have adequate incentive to develop global sourcing or to expand capacity, these large companies often pursue purchase strategies inconsistent with their future requirements.

As long as the demand is strong and our industry is limited, we need to have strong management to set clear profit, investment and staffing goals. We need to successfully gain margin adequate to make our industry a good investment for the future.

Raymond

STEEL FOUNDERS' SOCIETY OF AMERICA
MEETINGS CALENDAR

2007

November
13

Specifications Committee Meeting, Tampa, FL

December
12/15

National Technical & Operating Conference, The Drake Hotel, Chicago, IL

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

SFSA Trend Cards (%-12 mos. Ago)	12 Mo Avg	3 Mo Avg	Jun
--	-----------	----------	-----

Carbon & Low Alloy

Shipments	6.4	9.0	13.3
Bookings	-3.7	-15.8	-8.9
Backlog (wks)	11.1	11.0	10.2

High Alloy

Shipments	1.0	2.4	10.6
Bookings	7.1	35.3	27.9
Backlog (wks)	11.5	12.4	11.5

**Department of Commerce
Census Data**

Iron & Steel Foundries (million \$)

Shipments	1,604.6	1,605	1,628
New Orders	1,600.7	1,612	1,593
Inventories	2,321.7	2,498	2,509

Nondefense Capital Goods (billion \$)

Shipments	66.4	65.8	65.7
New Orders	76.9	76.2	77.4
Inventories	116.1	121.0	121.5

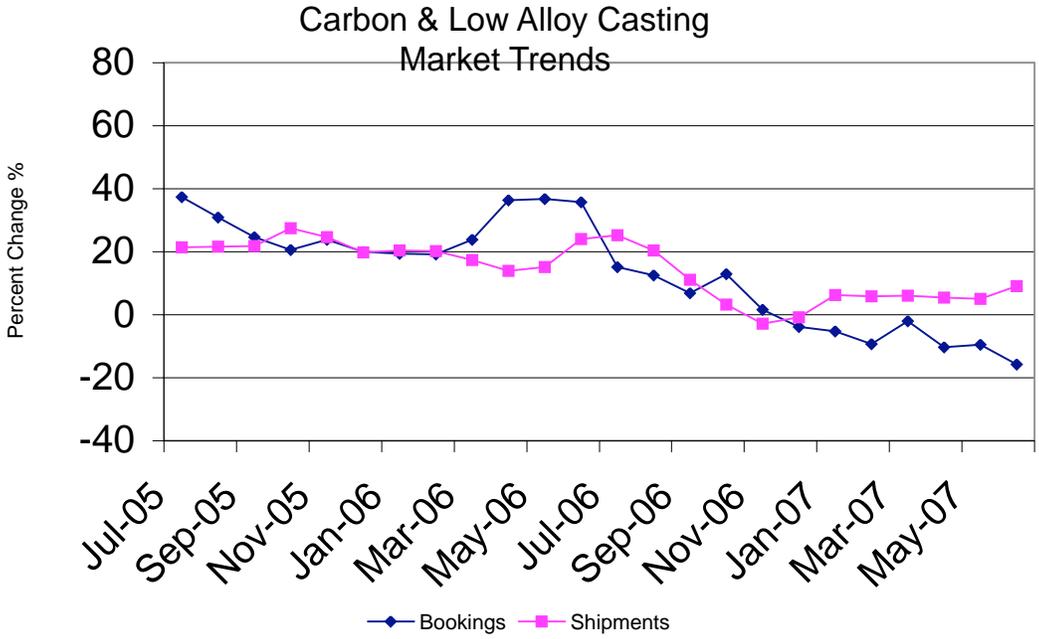
**Nondefense Capital Goods
less Aircraft (billion \$)**

Shipments	61.2	60.6	60.4
New Orders	63.3	62.4	62.0
Inventories	96.2	97.6	97.9

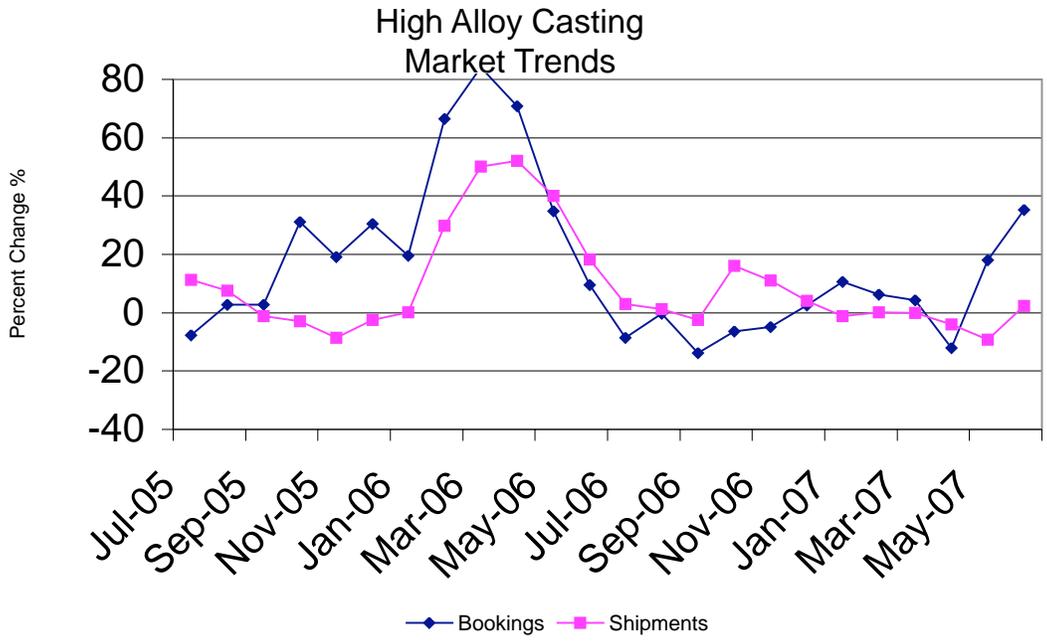
Inventory/Orders		1.56	1.58
Inventory/Shipments		1.61	1.62
Orders/Shipments		1.03	1.03

American Iron and Steel Institute

Raw Steel Shipments (million net tons)	8.8	9.0	8.9
---	-----	-----	-----



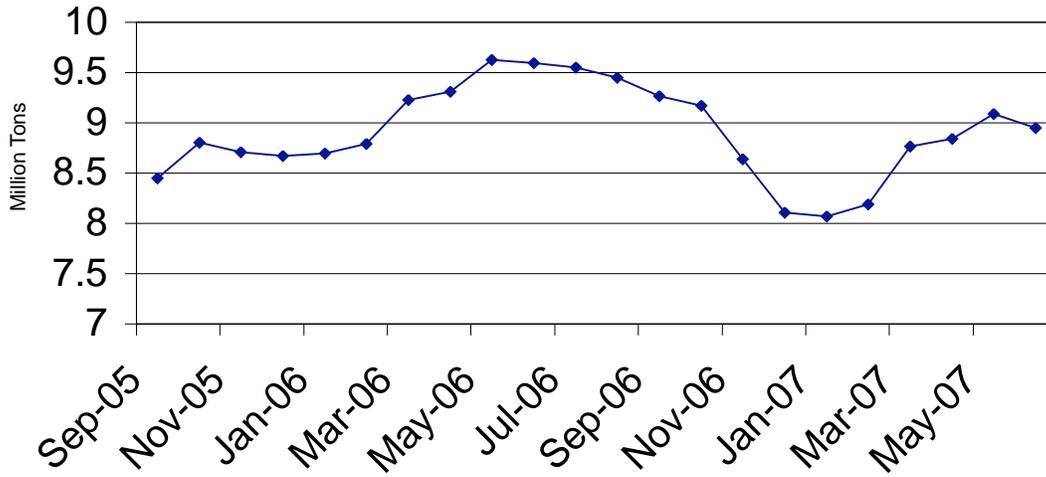
SFSA Postcards



SFSA Postcards

Raw Steel Shipments

3 month average



AISI Data

Iron and Steel Castings

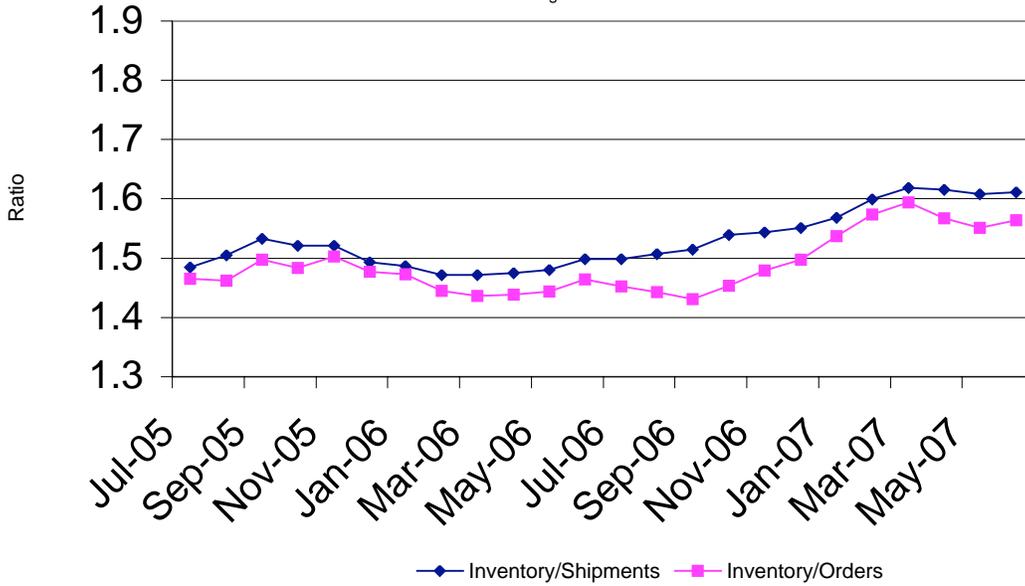
3 month average



SFSA

Nondefense Capital Goods less Aircraft

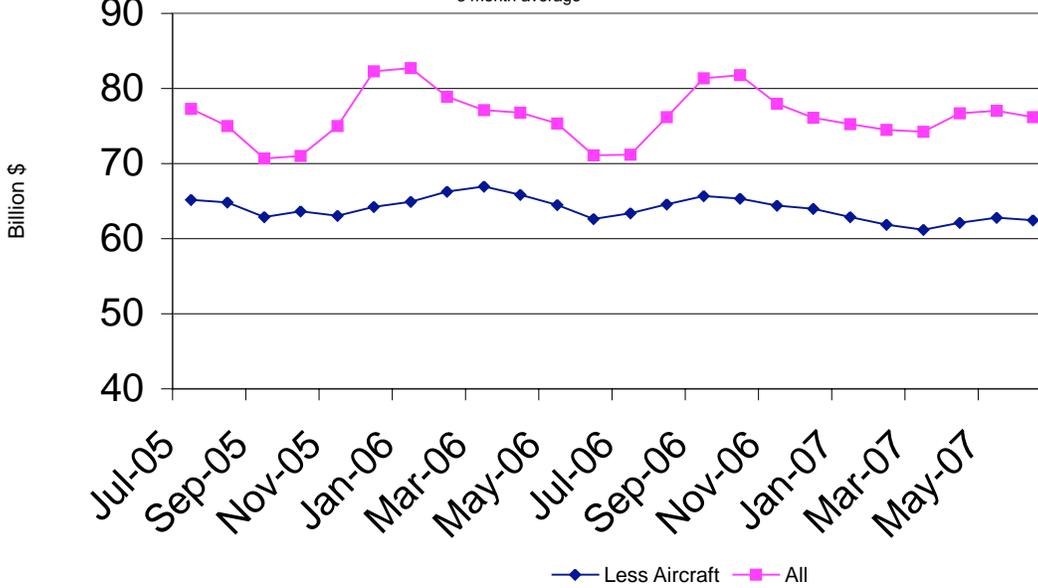
3 month average



Department of Commerce

Nondefense Capital Goods New Orders

3 month average



Department of Commerce

Docket No. 2007N-0330 Presidential Interagency Working Group on Public Safety

As manufacturers of materials and products that are used in safety applications, foundries are well aware of the problem of imported products that fail to meet our own domestic standards. Often these products are not covered by regulatory requirements but by voluntary or commercial standards. The liability of failure to comply with the standards in case of a failure is a principal inducement for compliance. Imports may not be subject to the same requirements either because the importer and user allows noncompliance for cost reasons or because the producer is not aware of the requirements. As in the US, some fail to meet the requirements but certify compliance.

The problem in our industry is not a regulatory failure of inspection at the border or a requirement failure in product specification. Our industry has seen the major failure as a lack of liability exposure on the part of importers. One example is the import of municipal castings. If a casting fails causing injury, domestic suppliers are liable if the product fails to meet requirements. If an imported casting fails, causes injury, and is non compliant, the injured party may have no recourse. The importer may only be a broker and warehouse and the manufacturer may have no legal exposure or assets in the US.

It would be greatly beneficial if importers were required to provide resources in case of failure and liability. This is a bondable or insurable risk. If importers were required to provide bonding or insurance at some reasonable rate commensurate with their liability exposure, then the current requirements and enforcement structures should be adequate.

This would limit the need for more administrative burden, for regulatory requirements, and more audits or certifications. By addressing the liability issue, our own system of holding producers accountable for product performance and safety could be applied to imports.