



SFSA CASTEEL REPORTER

Steel Founders' Society of America

a monthly publication
serving SFSA steel casting industry Members

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Casteel Commentary

This month's Casteel Commentary discusses four challenges we face as an industry. We need to re-capitalize our plants, develop new products, recruit new people, and create new technology. To do this we must be able to prosper. Our large customers have not been helpful and seem to fail to understand that they depend on us and that the funds we need to succeed will come from their purchases. It looks like it will take a lack of capacity and a bid for that limited production to get our customers to act rationally and allow our industry the prosperity we need to survive and serve their product needs.

Technical & Operating Conference

SFSA's 67th Technical & Operating Conference will be held at the Drake Hotel in Chicago December 12-14. The T&O Committee has assembled a strong program with 40 papers, plus a member workshop on the afternoon of Wednesday, December 11. There is a discount for registrations received and paid in full by November 1. More information is available here:

<http://www.sfsa.org/sfsa/toconf>

Annual Meeting

The SFSA Annual Meeting was a success. We had 21 companies represented with 60 delegates. The SFSA Annual Forecast was presented by Terry Decker and projected a modest market improvement for 2014. Ted Schorn gave us two presentations; one of our record and need to improve in the area of safety and another on the stewardship responsibilities of management. We had an informative summary of the changes for our healthcare policy in Obamacare from Dave Young of the Lighthouse Group. The roundtable discussion was interesting with an extended discussion of the reasons plants are investing in machining capability. Chip Davenport and Theresa Nickels gave a lively gameshow format contest on the potential for liability in casting production and strategies for mitigating your risk. The Annual Meeting presentations are located here,

<http://www.sfsa.org/meetings/annmtg13>, for our member companies.

Steel Casting Seminar

"The Good, The Bad, and The Ugly" seminar is a one day event and covers challenges we face with communicating with the customer, capabilities of steel castings compared to forgings/weldments/hog-outs, nuances of casting steel, casting defects, welding castings, quality, and specifications. The event in Milwaukee is at capacity; however, we will offer the seminar again in 2014. SFSA will also offer the seminar at your plant for you and/or your customers. Contact David Poweleit at poweleit@sfsa.org for more information.

Western Division Meeting

There is still time to plan to attend the Western Division meeting that will be held August 22 in Portland, OR. The agenda includes presentations on hydrogen baking, water quench cleanliness, sand control, B&L Odyssey ERP System, demand controller, rebuild of a heat treat oven, burn-in/burn-on, and an SFSA update from Rick Boyd. Please register with Rick at boyd@sfsa.org.

Marketing Committee

The next SFSA marketing Committee meeting is at the Four Points Sheraton on August 14th to prepare the 2014 forecast. Committee members will meet for dinner on the 13th. Contact R. Monroe if you are planning to attend.

Southern Division

The Southern Division meeting will be held in conjunction with the Joint meeting of the Specialty Alloy and Foundry subcommittee of the Association of Iron and Steel Technology (SAFTC-AIST) at University of Alabama – Birmingham (UAB). The meeting will include UAB presentations and a tour of the university. Please join us in Birmingham, AL for industry presentations, a mini-seminar on Gauge R&R, and a foundry tour on November 13-14. Contact David Poweleit at poweleit@sfsa.org to register for the event.

HR / Safety

The next SFSA Safety/HR meeting will be held on October 22-23 in Pittsburgh, PA. We will tour McConway & Torley and have Barry Nathan, Leader Business Coaching, as a guest presenter on the psychology of safety. Addition presentations will include: SFSA artisan program, healthcare changes, OSHA VPP Star, Silica sand PEL, MSDS, ground fault detector for induction furnace and roundtable discussion.

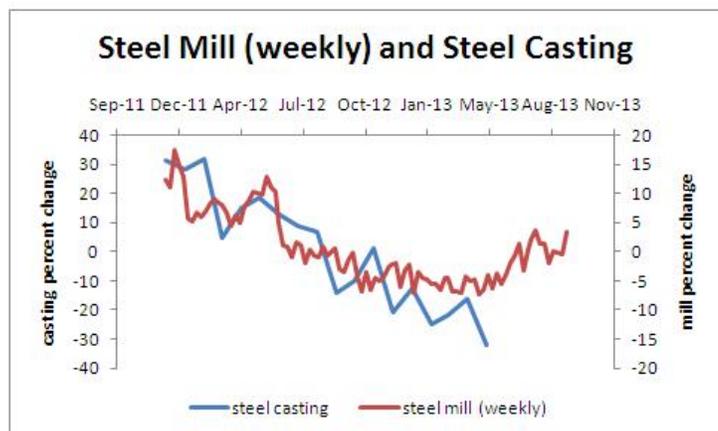
2014 AFS/FEF Student Technology Scholarship

The American Foundry Society (AFS), in conjunction with the Foundry Education Foundation (FEF), is now accepting applications for the 2014 Student Technology Scholarship contest. The contest encourages student participation and recognizes excellence in student research in the field of metalcasting technology. More information can be found here: <http://www.afsinc.org/scholarship>

Market News

The latest month's trend cards for May show improving orders; positive year over year for stainless production and less negative for steel castings. Shipments for both are declining year over year with steel castings off more than 20% based on the average of the median for our survey. Backlogs for steel castings are slightly below 10 weeks and stainless casting backlogs are slightly above 10 weeks. Some speculate that the 10-week number is managed through labor practices. Lead times less than 10 weeks leads to excess volatility in labor requirement but lead times in excess of 10 weeks encourage global sourcing.

Troubling is the continued decline in the Census report for iron and steel castings through July 2013. The iron casting segment dominates this report, and iron casting production leads steel casting production at least historically on an annual basis. The continued drop in iron and steel casting shipments and orders is of concern. The steel mill shipments show a much stronger recovery since late 2012 and have not recovered to 2011 levels but are significantly higher than the low point.



Since the steel mill production is reported each week, it is possible to get a more current view of steel market conditions. Steel mill production has seen a modest improvement on a weekly basis since the beginning of 2013. It has stabilized for the last couple months but at a higher but not fully recovered level. This would suggest modest improvements in steel casting production for the balance of the year.

Non-defense capital goods show the sharp decline that we saw in steel castings in the second half of 2012 and the modest recovery in 2013 so far. Orders have picked up sharply since their low point in Fall 2012.

Most indicators then point to a stable or slightly improving market for steel castings for the balance of 2013.

Casteel Commentary

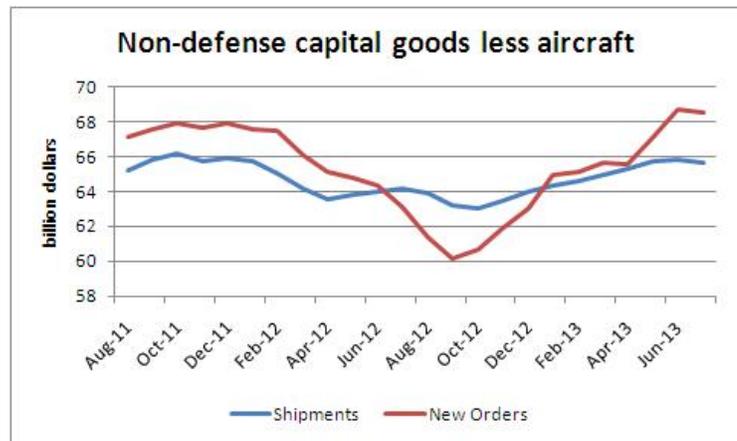
In reflecting on the challenges our industry faces, it seems that we must do several things over the next five years. We need to re-capitalize our plants with modern equipment. We need to develop new casting applications to grow our market and replace legacy applications that will fade away. We need to recruit and train the next generation of foundry professionals and artisans. We need to innovate our processes and technology to create steel castings as the next new- new thing.

Recapitalization will require more attractive returns on capital than our industry has achieved for most of the past two decades. During some of the most active markets in the last decade of near capacity demand, the peak gross margin was 28%. Investing in capacity with the expectation of a three year payback requires a gross margin on sales of over 33%. Our excess capacity from 1980 til 2003 meant that every foundry aggressively cut costs. While cost cutting is always necessary, improved margins adequate to reinvest is unlikely to come from cost cutting. As our lack of investment limits the capacity of our industry, strong market demand that is the result of the need to rebuild our old infrastructure will tax and exceed the global supply. The price increases of buyers bidding for limited capacity are likely to create the margins needed for capacity re-investment. We will need to plan the needed investments and be prepared to take advantage of strong demand to capture the investment capital we need.

Steel castings are seen as a legacy process that is not capable of creating high tech, high performance modern components. This is naïve since steel as a material has properties yet undiscovered and unexploited in the market place. While the buzz may be to use titanium or magnesium, high strength steel can exceed their performance on a weight basis in many critical applications. Our challenge is to participate in the design using modern design tools like modeling, using our process understanding to creatively improve value, and our alloy and heat-treat flexibility to apply innovative materials. We need to exploit our capabilities in the marketplace.

Steel foundries are seen as a rust belt relic that will fade away or be displaced to less developed economies. This is not likely since some of the most profitable and capable steel foundries in the world are in the most advanced and most expensive economies. Germany, Italy, Japan, France and the US have the most advanced foundries for the most demanding applications. We need to show young and talented engineers and manufacturing managers the exciting and challenging opportunities in our industry. While part of this is a perceptual challenge of our industries image, some of it is our inability to pay wage premiums to attract the best talent. When steel casting technology is in high demand and the buyers bid up the price of our products, we will need to raise our wages to attract and retain the world class talent for the next generations.

Finally we need to innovate in our products and processes to become new again. Excess capacity dampens interest in new technology. Excess capacity makes customers consolidate supply chains and focus on cost not competitive innovation. In a market that is capacity constrained with its



accompanying rising costs, customers are looking for innovations to remain competitive. We need to be looking, trying, investing, and pushing for the breakthrough process and product changes to make our industry new again.

All of these challenges are not only difficult because of our industries history and legacy of excess capacity and poor financial performance; our large customers have pursued self interest purchasing policies that damage us as suppliers. Each of the challenges we face are exacerbated by the practices of our largest customers. Using their market clout to us as small suppliers, we have not demanded the rates of return necessary to prosper. We have allowed the customers to dictate to us and have not found a way to gain the position in our business to prosper, reinvest, innovate and recruit. Our large customers are actually less capable of designing products, using castings efficiently, developing positive and healthy supply chain relationships. Unfortunately it is unlikely that they will change until lack of capacity and market demand forces them to treat the supply chain, including us, reasonably. We must prosper and reinvest to be capable of meeting our customers' needs. The irony is that all the money that we require to invest and prosper will come from those customers and they do not seem to understand that basic fact.

Raymond

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

SFSA Trend Cards 12 Mo Avg 3 Mo Avg May April March
(%-12 mos. Ago)

Carbon & Low Alloy

Shipments	-23.3	-23.3	-32.0	-16.0	-22.0
Bookings	-13.7	-13.7	-0.2	8.0	-48.8
Backlog (wks)	9.6	9.6	8.8	10.0	10.0

High Alloy

Shipments	-10.3	-10.3	-5.0	-22.0	-4.0
Bookings	15.0	15.0	-0.1	85.0	-40.0
Backlog (wks)	10.6	10.6	9.8	12.0	10.0

**Department of Commerce
Census Data**

Iron & Steel Foundries (million \$)

Shipments	1,707.3	1,707.3	1,642	1,710	1,770
New Orders	1,662.0	1,662.0	1,606	1,661	1,719
Inventories	2,226.0	2,226.0	2,287	2,301	2,090

Nondefense Capital Goods (billion \$)

Shipments	73.2	73.2	75.9	71.4	72.3
New Orders	77.7	77.7	86.1	76.4	70.7
Inventories	172.5	172.5	170.9	171.0	175.6

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

Shipments	65.8	65.8	66.5	65.2	65.6
New Orders	67.1	67.1	69.0	67.5	64.9
Inventories	120.0	120.0	119.7	119.8	120.4

Inventory/Orders		1.8	1.74	1.77	1.85
Inventory/Shipments		1.8	1.80	1.84	1.84
Orders/Shipments		1.0	1.04	1.04	0.99

American Iron and Steel Institute

Raw Steel Shipments (million net tons)	8.0	8.0	8.0	8.0	7.9
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