



SFSA CASTEEL REPORTER

Steel Founders' Society of America

a monthly publication
serving SFSA steel casting industry Members

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February — 2013

Casteel Commentary

The Casteel Commentary tries to make sense of our current economic climate. It is likely that we face, for the immediate, future a Japanese-style stagnation as the majority of decision makers try to retain the current economic structure without the pain of significant restructuring. Given the massive market distortions and rapidly changing market requirements, we are likely to see another crisis or downturn to force these needed changes. Beyond this painful event, our industry remains poised for prosperity and growth as try to supply a growing demand for capital reinvestment and expansion.

SFSA Awards

One of the privileges we have as an industry is to recognize our friends and peers for their service to our industry. SFSA has a number of awards we have established to recognize these contributions. Attached is a list of possible recognitions from SFSA.

Please take a minute and consider who we should recognize for their work.

Our current Awards Committee includes:

John Workman

jworkman@eaglealloy.com

Bill Reinsel

William.Reinsel@Andritz.com

Phil Harper

pharper@americanfoundry.com

Your nomination can be sent to any of them, or to me at monroe@sfsa.org.

Student Interns

SFSA will recognize SFSA member student interns again at the T&O conference this year. We have changed the program to recognize more papers from these talented students. Any student intern from a member company will be able to submit a paper. The papers will be evaluated and the top 5 will be presented at the T&O Conference. The selected papers will be recognized with a \$1000 award.

Apprenticeship

SFSA has developed a prototype apprenticeship program for our members. It was distributed before Christmas for your comments. Please look at this effort and give us your comments. Also if you are interested in using the program, please drop me an email, monroe@sfsa.org. If you need to look at the program it is located at <http://www.sfsa.org/apprentice>

Safety and Human Resources

SFSA Safety and Human Resources Meetings are in Longview, TX on February 19 and 20. Meeting details and registration is here: <http://www.sfsa.org/meetings/safety0213.php>. We will be developing additional details and setting a strategy for implementation of the SFSA Apprenticeship program. If your plant is interested and has not yet indicated your intent to participate, please email me at monroe@sfsa.org.

Future Leaders

SFSA Future Leaders Meeting is February 21 and 22 in New Orleans, LA. Meeting Details and registration is here, <http://www.sfsa.org/meetings/future0213.php>. This session will include a seminar of heat treating and steel casting metallurgy.

CastExpo

SFSA is planning a Dutch treat lunch for members and invited non-members at the AFS Cast Expo this year. The Expo is open and the steel sessions are on April 8. Our lunch will be at the convention site on April 8. We will be sending out a notice but you should plan to attend.

Foundry Tours – Germany and Poland

SFSA is arranging a trip with foundry tours to Germany and Poland for April 15-20. If interested please contact us at monroe@sfsa.org.

Expert Witness

Members have occasionally asked for our assistance in working with a customer. We have routinely supported our members with phone calls, customer visits and training to work with customers so that they understand the industry practices, specifications and the capabilities of steel castings. This is normally done at the out of pocket cost to SFSA.

Recently we were asked if members of SFSA staff could be available as expert witnesses in unresolved disputes with customers. After checking with our attorney and consulting with the Board of directors, it seemed appropriate and helpful for SFSA staff to be available to members as experts on the industry in their disputes with customers.

If your company needs this type of added support or just needs the support of SFSA staff in just contact us to see what can be arranged.

In Addition, the Board recognized that not all members were aware that SFSA staff has supported the members by providing onsite training at the member's plant or at the customer's facility. There is a fee required but this is also available to you as a member of SFSA.

Training and SFSA

One need that is apparent in equipping the next generation to produce steel castings is training. We need to transmit the experience, art and science of steel casting production in an accessible way. The SFSA Board of Directors has asked us to conduct a survey of your needs and develop training that will help our industry in this area.

1. What do you think is the biggest training need that you have that SFSA could help meet?
2. Does SFSA need to focus on workshops that cover the state of the market technology, quality and production requirements?
3. Does SFSA need to develop basic overview courses in steel casting process and product capabilities for newer participants?
4. Does SFSA need to develop courses to support the training requirements of the apprenticeship program under development?
5. Please rank the following course possibilities:

Course Content	Rate 1-5 with 5 high interest and comment
Steel Foundry 101 Process and Products	
Clean Steel techniques and technology	
Steel Casting Design	
Steel Casting Specifications and NDE	
Steel Casting Quality Control	
Steel Casting Heat treating	
Steel Casting Melting	
Steel Casting Basic Metallurgy for non-metallurgists	
Steel Casting Gating and Riserling	
Steel Casting Process Troubleshooting (defects)	
Steel Foundry dealing with people	
Others?	
Steel Casting Production Safety	

Rigging and Intellectual Property

The topic of who owns the engineering intellectual property of your rigging for a customer is a common issue. It has been the subject of numerous discussions and is germane since some customers try to claim it and use it with other suppliers.

The issue is who is at risk in the development of the rigging system. If the customer is contracting for the rigging system and paying for the system regardless of success, then they own it. They paid for it. If the customer is paying for a casting that must meet certain requirements and the foundry is at risk until they are able to meet those requirements, then the foundry owns the rigging. This is important. Foundries are able often to claim an R&D tax credit based on their investment in rigging new products. Foundries also must make a business decision as to how to respond to customer requests for rigging details. Foundries should understand that if they are at risk in their investment during the development of the rigging approach, then they own the rigging IP.

Conflict Minerals

A steel foundry asked SFSA to conduct a survey on the issue of Conflict Minerals. The SEC on August 22, 2012 adopted reporting rules for firms that use conflict minerals that originate in the Democratic Republic of Congo or adjoining country. This requires filing a new form with the SEC called form SD. Fortunately for almost all steel foundries the rule will not require a report.

If your company is not required already to file reports with the SEC, no action is required.

Not liable for the new form SD is company that is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act, regardless of whether it is filing voluntarily.

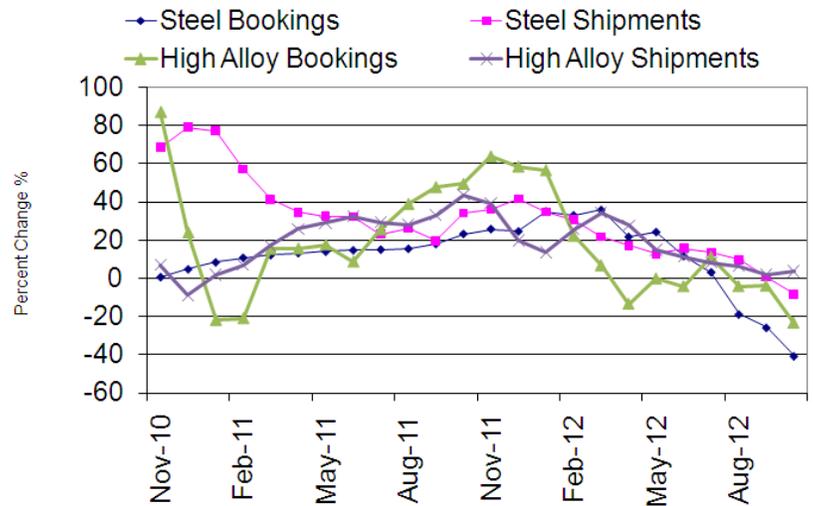
Non-reporting companies include:

- US private companies.
- Non-US private companies.
- Non-US companies that are public in their home countries but are not reporting companies under the Exchange Act.

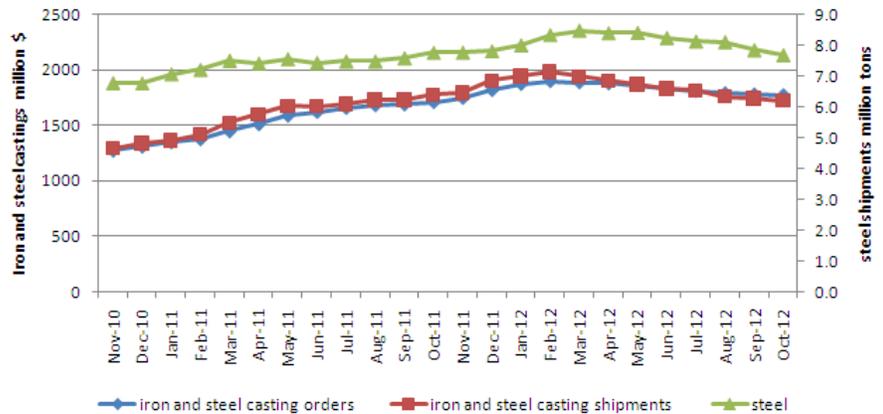
Market News

The SFSA Trend reports for steel and stainless steel castings show a continued down trend in bookings through October last year. Bookings are below 20% for both categories. Shipments are also trending down and are close or below zero meaning that we are contracting in shipments compared to last year. Shipment growth peaked early in 2012 and has fallen in terms of growth since. Bookings compared to last year fell below shipments indicating a slowing market. This is consistent with the expectation that the final quarter of 2012 was down and the start of 2013 is slow.

This is consistent also with the iron and steel casting shipments reported by the DOC Census showing orders and shipments falling since February 2012. Steel long product shipments reported by AISI have trended down since March of 2012. Steel long product shipments



Iron and steel casting shipments and AISI steel shipments



are still below the levels prior to the meltdown in the financial sector in mid-2008.

Non-defense capital goods new orders without aircraft show a similar downward trend since the beginning of 2012.

Casting backlog remains steady between 10 and 11 weeks.

Casteel Commentary

It is probably useful to consider this month the overall economy in North America and given the volatile and softening markets, try to make sense of where we are and where we are likely to go. This is fraught with challenge since both the political, economic and global picture is uncertain.

It seems reasonable to rely on certain basic facts. Barring a Mayan like catastrophic event, our world will continue to need increasing levels of energy and raw materials to maintain and improve standards of living. With the depletion of rich and easy sources of energy and raw materials, we will need more complex and higher performance equipment to extract the resources we need. Even if we are successful with technology in creating more sustainable lifestyles, these sustainable technologies are likely to need significant capital equipment to function. These underlying demographic, technological, and economic trends suggest steel casting production will remain a key industry. Many of these trends favor the more developed economies that are capable of more sophisticated higher performance production.

However, even barring a significant catastrophic event, the rising standards of living in the world suggest that we will reduce the rate of population growth and will likely see falling populations and an aging population. Rising standards of living also make hard physical work less attractive to a smaller entering workforce that may not need or value employment. The cultural bias towards professional rather than artisan work for human fulfillment and employment will make workforce development problematic. The attractiveness of administrative and urban employment with its status will make manufacturing more difficult to sustain.

So long term, I think we will continue to be essential to the economy but will be faced with continued challenges.

In the medium term, I believe we are in need of additional significant capital investment in basic infrastructure. The development of fracking as a technology that makes energy available and affordable will create incentives and market demand for new capital projects. For example, cheap natural gas makes petrochemical industry production attractive in North America. The conversion of some portion of our transportation needs to the use of natural gas will require significant investment in our infrastructure. Our bridges, pipelines, factories have suffered from systemic lack of investment. As low interest rates rise and commodity prices remain elevated, investment will be triggered sparking continued demand for steel castings that will tax the existing capacity globally for our industry.

Our challenge in the mid-term is to develop a capital investment in our plants that can reduce our workforce requirements, improve our flexibility in terms of product mix, volume, and complexity. We will need to try to meet market demands to reduce the migration of our markets to other regional suppliers due to our lack of capacity to meet our customers' demands. We will need to create the investment capital for this purpose and this will require either the cooperation of our customers or drastic disparities in supply and demand resulting in prices that signal and provide for our needed capital investment.

Our immediate challenge is how to run the business today in a softening market that is filled with market distorting forces. Low interest rates with large expansions of the money supply locked up in the financial sector is making capital investment unclear. What future is in store for us over the next year or two? I thought the election would bring some clarity to the economic outlook and allow many of these distortions to dissipate. It seems to me we could have a number of scenarios moving forward.

The public policy makers seem to prefer the Japanese approach which is to prop up the existing system and kick the can down the road hoping the economy will recover its lost direction and growth without any market based major restructuring. Some activist policy makers believe our current condition suggests the need for more government direction and control to overcome the limitations of the market and the inequities in the economy. Other traditional thinkers believe that absent a

liquidation of mal-investment through liquidation of unprofitable and ill priced assets, the economy will be unable to improve.

So the tension, it seems to me, is between those who are trying to maintain the current system through bail outs and subsidies hoping for a return to the old normal, those who envision reducing inequity and improving our economy through more intervention to arrive at a newer more just normal, and those who believe that the marketplace must be allowed to re-price and reorganize the economy to resolve the distortions present and find the right normal moving forward.

At the moment, I think we are stuck in that Japanese moment (at least I hope it is a moment-less than a year not more than a decade), where a majority of actors and decision makers are so invested in our existing system that we will try to retain it heroically. Yet the distortions and mal-investment are so profound that we are unable to move forward so we are doomed to dismal growth and high unemployment. My hope and expectation is that we will see a major market correction in the next six months that will clear the air and force some of the market required restructuring that will allow our customers to invest and our industry to prosper.

So I think the most prudent course for us in this time is to run our plants to maintain and improve our capabilities, anticipate a potential further market decline as the economy is forced to adjust, and be prepared to make major new capital investments to serve and prosper in the emerging growth of required capital investment.

Raymond

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

SFSA Trend Cards (%-12 mos. Ago)	12 Mo Avg	3 Mo Avg	Oct	Sep
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Carbon & Low Alloy

Shipments	14.3	-8.4	-17.9	-14.0
Bookings	4.8	-40.6	-49.9	-30.9
Backlog (wks)	11.9	10.3	9.0	11.0

High Alloy

Shipments	13.3	3.7	7.0	-2.4
Bookings	7.7	-23.4	-22.0	-31.4
Backlog (wks)	11.6	10.7	10.0	10.5

**Department of Commerce
Census Data**

Iron & Steel Foundries (million \$)

Shipments	1,830.0	1,769.3	1,772	1,770
New Orders	1,844.8	1,719.3	1,781	1,685
Inventories	2,119.4	2,146.0	2,132	2,149

Nondefense Capital Goods (billion \$)

Shipments	70.1	69.9	70.3	70.2
New Orders	73.8	67.2	72.8	70.9
Inventories	169.3	172.7	173.5	172.7

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

Shipments	64.1	63.0	63.1	62.9
New Orders	64.1	60.7	61.8	60.0
Inventories	118.8	121.5	121.7	121.5

Inventory/Orders		2.00	1.97	2.02
Inventory/Shipments		1.93	1.93	1.93
Orders/Shipments		0.96	0.98	0.95

American Iron and Steel Institute

Raw Steel Shipments (million net tons)	8.0	7.7	7.4	7.2
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AWARDS COMMITTEE AND ROBERT G. SHEPHERD AWARD COMMITTEE

Following is a description of the procedure adopted by the Board of Directors governing the selection of individuals to be recognized by the Steel Founders' Society for noteworthy service rendered and contributions made on behalf of the Society and the Industry.

I. STEEL FOUNDERS' SOCIETY AWARDS

A. The Frederick A. Lorenz Memorial Medal

The Frederick A. Lorenz Memorial Medal was established by the Steel Founders' Society of America in 1938 in commemoration of the outstanding and unselfish service rendered to the Steel Castings Industry by the late Frederick A. Lorenz, President of the Society from 1934 to 1938.

The medal was designed by the famous sculptor, Kilenyi. The obverse bears a portrait of Mr. Lorenz while the reverse shows an industrial scene, the Society's emblem, and the name of the recipient. The first Lorenz Medal was awarded in 1938. The medals are struck in bronze, and the recipient is also given a gold charm and a commemorative Certificate of Award. In addition, a scholarship in the recipient's name is presented to the school of his choice.

The Frederick A. Lorenz Memorial Medal may be awarded annually by unanimous vote of the SFSA Board of Directors, and at its sole discretion, to an employee of a member of the SFSA for outstanding service to the Industry.

B. The Charles W. Briggs Memorial Technical & Operating Medal

The Technical and Operating Medal was established by the Steel Founders' Society of America in 1944.

The medal was designed by the well known sculptor, Walter A. Sinz. The obverse shows objects and scenes emblematic of the technical and operating activities of the Industry. The reverse depicts an industrial scene, the Society's emblem and the name of the recipient. The first T & O Medal was awarded in 1944. The medals are struck in bronze, and the recipient is also given a gold charm and a commemorative Certificate of Award. In addition, a scholarship in the recipient's name is presented to the school of his choice.

The T & O Medal may be awarded annually by the unanimous vote of the Board of Directors, and at its sole discretion, to an employee of a member of the SFSA for an outstanding scientific or engineering contribution, or contributions rendered at any time, toward the technical or operating advancement of the Industry.

In 1969, the medal was renamed the Charles W. Briggs Memorial Technical and Operating Medal in recognition of the activities of C.W. Briggs from 1938 to 1968.

C. Thomas E. Barlow Award of Honor

To provide appropriate recognition of persons who have made distinguished contributions to the Industry, but who are not eligible to receive either the Lorenz Medal or the C.W. Briggs T & O Medal, the Awards Committee may recommend the award of the certificate known as the Thomas E. Barlow Award of Honor. In addition, a scholarship in the recipients's name is presented to the school of his choice.

The recipient of this award may include a person not a citizen of the United States, or more than one person if the contribution is regarded as a joint accomplishment.

Recommendations for recipients of the Thomas E. Barlow Award of Honor may emanate from the Awards Committee but also may include nominations from any source. Any recommendations shall be submitted to the SFSA Board of Directors in accordance with the procedures established for the Lorenz Medal and C.W. Briggs T & O Medal Awards.

In 1972, the Award of Honor was renamed the Thomas E. Barlow Award of Honor in recognition of the activities of T.E. Barlow, SFSA Executive Vice President from 1965 to 1971.

D. Robert G. Shepherd Award Committee

The Robert G. Shepherd Award consists of two cash awards in the amounts of \$500 for the first award and \$250 for the second award to the authors of the two best papers appearing in the T & O Proceedings each year. Each winning author is also given an appropriately inscribed and framed certificate. These awards are presented at the T & O Conference each year.

Only authors who are full time employees of member companies are eligible for a Shepherd Award. These awards are made annually by the Board of Directors upon the recommendation of the Robert G. Shepherd Awards Committee consisting of the current T & O Committee Chairman, the immediate past T & O Committee Chairman, and a member chosen by the current SFSA President. The present T & O Chairman functions as the Chairman of the Committee.

II. HONORARY MEMBERSHIP

Nominations for Honorary Membership may emanate from the Awards Committee. All nominations for Honorary Memberships shall be reported to the Board of Directors by the Executive Vice President. All past Presidents of SFSA and SFSA Medalists will be elected to Honorary Membership on their retirement from full-time activity with a member company.