SFSA CASTEEL REPORTER

Steel Founders' Society of America

a monthly publication serving SFSA steel casting industry Members

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Casteel Commentary Highlights:

This month the commentary considers the issue of proprietary information. While sometimes a plant has an innovation that gives them a competitive advantage this is infrequent. Many if not most proprietary advantages are not better than the state of the market solution. The unwillingness to interact with others and lose our "secrets" and a lack of contact with others allows legacy systems that are less efficient to proliferate in our plants. The most compelling value of SFSA is not our research or staff but the willingness of members to interact openly and refine the state of the market practices. Success comes from execution and implementation.

Safety Meeting

The next Safety and HR meeting will be held at Metaltek (Wisconsin Centrifugal) in Waukesha, WI on August 20-21. Information has been sent via email to all SFSA members; contact Malcolm Blair for additional information.

Western Division

The Western Division Technical & Operating meeting is scheduled for August 14-15 in Portland, OR. The program includes presentations on Large Diameter Air-Arc Power Source Availability Research, Foundry Dust Aggregation, Riser Feeding Aids, SFSA news, a roundtable discussion of business conditions, and a plant tour of Vancouver Iron & Steel.

Eastern Division

The Eastern Division Technical & Operating meeting will be held August 26 and 27 in London, Ontario, Canada at AmeriCast London, Casting Division. The preliminary program includes presentations on B&L System at A.G. Anderson, Reduced Turns, Effect of Molding Variables on Surface Condition, SFSA news, a roundtable discussion of business conditions and a plant tour of AmeriCast London, Casting Division (formerly A.G. Anderson Ltd.)

Research Review

The Carbon and Low Alloy Research Review, to be held July 16-17 in Rosemont, IL, will provide an opportunity for you to hear from the researchers the progress of their work. Most importantly it gives you an opportunity to provide input into the direction of the work enabling the greatest value to be achieved by the member foundries. Make a note of the dates and plan to attend.

Annual Meeting

This year's SFSA Annual Meeting is being held in Charleston, SC, September 6-9. Mark your calendar! Registration material is being sent to SFSA members.

Innovation

In trying to assess the role of magnetic particle testing MT and liquid penetrant testing PT, UAB has evaluated the depth of common indications. While cracks, lines and not blobs, are persistent; other indications are shallow. Most indications are less than 1/8th in. deep. They are most likely due to inclusions or surface roughness.

This suggests that the common practice of added machining stock and the elimination of inspection and remediation as well as the efficient removal of surface roughness has made this a typical and successful strategy.

Safety

Many of us older foundrymen wear glasses to see finer print or close detail. Since we only need reading glasses using typical safety glasses in a plant is awkward. We need to take of the safety glasses and put on our reading glasses. You may wish to consider affordable generic bifocal safety reading glasses available here: http://www.discountsafetygear.com

SFSA Member Locations

SFSA has a map that shows how member plants are distributed geographically here: http://www.sfsa.org/dir/membermap.html

Specifications

Last month this section discussed grade substitution. One member commented:

"The phrase, "While the specification allows the supply of a lower carbon stainless steel for a higher carbon grade with no minimum...", may be correct as A 703 and A 781 are written, it isn't necessarily always correct. Many moons ago I can recall a valve customer rejecting the substitution of say CF3 or CF3M for CF8 or CF8M, respectively. They required a minimum of 0.04% carbon. At one time, there were "H" grades in some of the wrought stainless steel specs - e.g 304H, 316H, which specified a carbon range rather than just a maximum. The reason(s) for the "H" grades escapes me at this time. I don't know if they are still included in the specs, so these comments may be non-germane as we like to say of negative ballots."

The "H" grades were intended for elevated temperature service and there was concern especially in the ASME Code that the design properties would not be correct with stainless steels that were made with modern methods to lower carbon contents. This was not a casting issue but a steel issue. As far as I know however, subsequent analysis showed no real issue and lower carbon grades are allowed.

Cap Ex

Steel Manufacturers will spend about 3.8% of sales for capital expenses. This is consistent with the results for steel foundries of our recent survey.

	Capex 07/sales	Capex 08/sales	Dep. 07/sales	Book/Sales
Avg	4.1	4.0	2.5	27.3
Med	3.2	3.6	2.4	25.3

The Federal Government keeps some similar statistics. If we look at steel manufacturing businesses, the Cap-ex runs from 2 to 4%. Machining has the highest average. Steel foundries in this survey are similar to our survey and the mills at 3.7%.

	Foundries	Forging	Machining
Materials	48	56	39
Labor	28	22	35
Energy	5.0	2.3	1.6
CapEx	3.7	2.9	4.1
Gross Profit	17.6	17.3	18.8

Market News

It appears as though the worst of the current slowdown may be past. While prices for metals have moderated, steel prices remain strong and are typically over $1,000 a ton for long products. Oil prices remain near historic levels. Most steel foundries remain busy even with uncertainty and economic slowdown.

SFSA trend cards show a slowing in bookings and shipments for most steel castings. The wild swings in our numbers are subsiding and the slowdown is off of unsustainably high levels of production. Many segments remain sold out for the plannable future.

Capital goods excluding aircraft show an uptick in demand. Steel shipments of long products and iron and steel casting shipments are showing an uptrend. More economic information on steel is included in the SteelGuru document on the Casteel Reporter web page.

Casteel Commentary

It is striking when you travel or interact with other industry groups. We have a special culture in the steel casting industry in North America. Our tradition of openness, plant visitation, common technical research program, collaboration is unique. Some of our members are guarded in their participation but this is mostly counterproductive.

Any plant that fails to participate and exchange ideas in the industry community is doomed to fall behind. As clever and creative as a plant is in solving their problems, improving their process, and gaining an advantage, they cannot exceed the market developments where the best solution for the market emerges from the competitive process. When someone shows a “proprietary” advantage, most of the time it is a legacy cost. The so called advantage, is actually not as good as the state of the market practice. Accommodating the proprietary or legacy system force added idiosyncratic practices that further limit performance.

The best plants are not the best because of their secrets, but because of their execution. If the best plant visits a typical plant and visa versa, the best plant will get the short end of the deal because they may find a good idea but the typical plant will find 10. But the best plant will still benefit because they will be able to implement that one good idea. The typical plant may fail to implement any of the ideas they get.

This is clear in our North American industry. Our recent tours of China and Brazil highlight how special and unique our culture is. We saw many opportunities for dramatic improvements. In Brazil especially, the plants were reluctant to host tour because we might “steal their secrets”. This closedness has hampered the investment casting community significantly. Without sharing there is no common technical infrastructure that allows the smart plant to exploit the market. Venture Capital firms now credit speed to market and not intellectual property as the key to success. Implementation of innovation is the discriminator.

What are your secrets? Are they limits to progress? How do stack up to the leaders of the industry?

Raymond

STEEL FOUNDERS' SOCIETY OF AMERICA

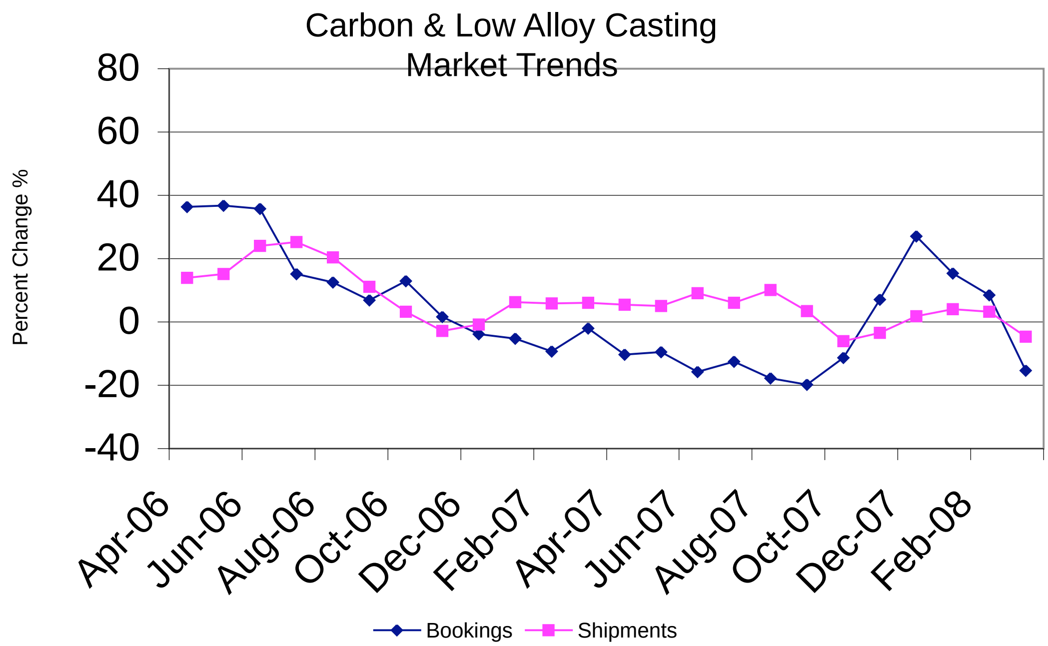
MEETINGS CALENDAR

2008

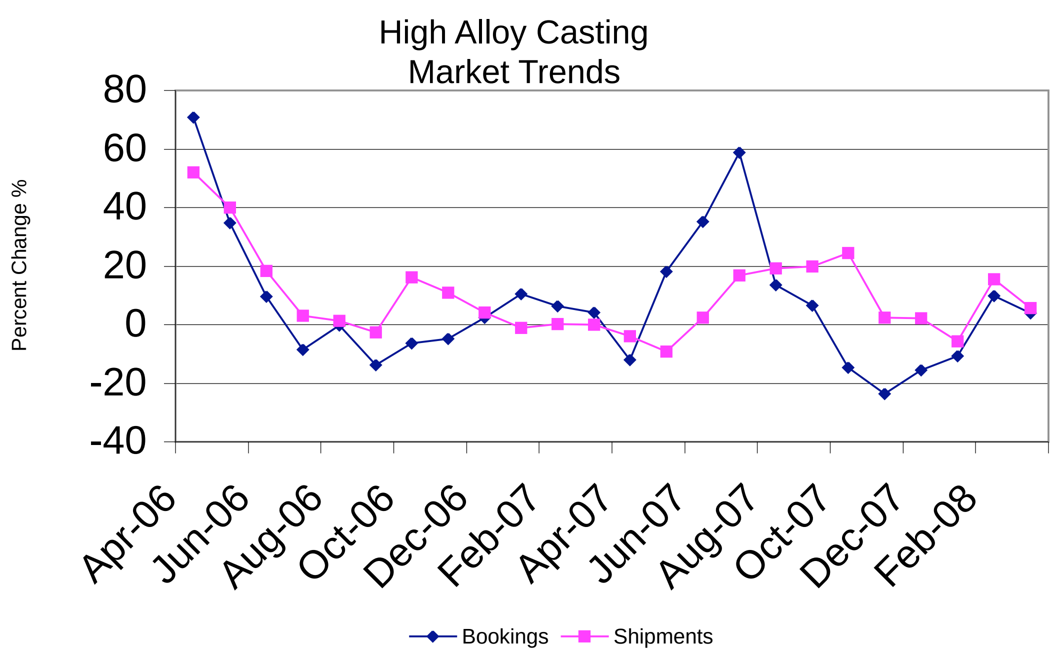
July		
16/17	C&LA Research Review	Rosemont, IL
August		
14/5	Western Division Meeting	Portland, OR
20/21	Safety & HR Meeting	Waukesha, WI
26/27	Eastern Division Meeting	London, Ontario, Canada
September		
9-6	SFSA Annual Meeting	Charleston, SC
December		
10-13	National T&O Conference	Chicago, IL

STEEL FOUNDERS' SOCIETY OF AMERICA
BUSINESS REPORT

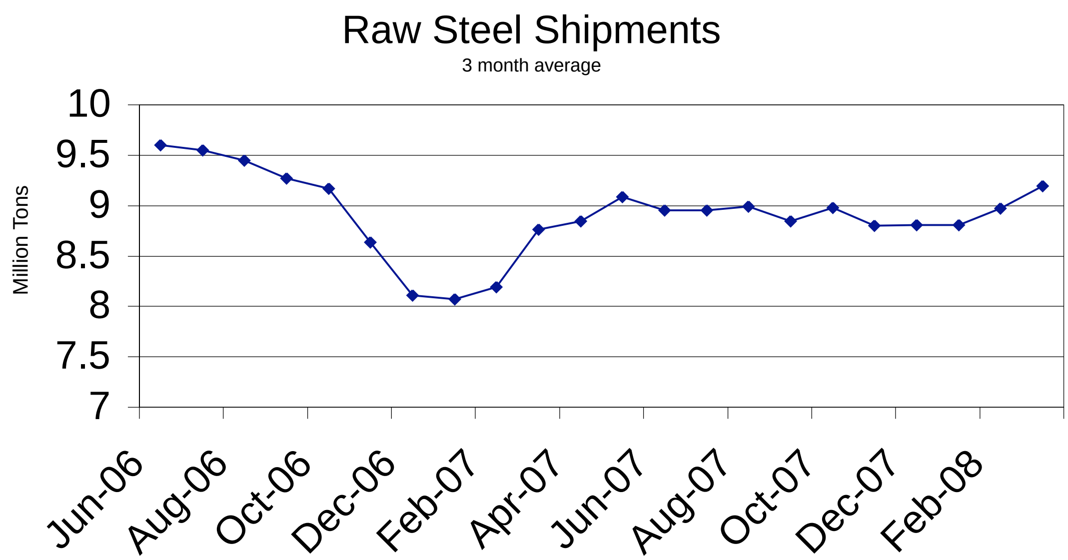
SFSA Trend Cards (%-12 mos. Ago)	12 Mo Avg	3 Mo Avg	Mar
Carbon & Low Alloy			
Shipments	2.4	-4.7	-14.7
Bookings	-6.0	-15.4	-26.6
Backlog (wks)	10.4	9.2	8.0
High Alloy			
Shipments	7.5	5.6	-17.9
Bookings	7.6	4.0	13.8
Backlog (wks)	11.1	10.7	10.5
Department of Commerce Census Data			
Iron & Steel Foundries (million $)			
Shipments	1,622.5	1,679	1,780
New Orders	1,622.0	1,675	1,770
Inventories	2,541.4	2,554	2,562
Nondefense Capital Goods (billion $)			
Shipments	67.1	67.5	66.7
New Orders	75.9	74.9	75.4
Inventories	124.9	130.7	133.6
Nondefense Capital Goods less Aircraft (billion $)			
Shipments	61.6	62.2	62.5
New Orders	62.8	63.3	63.2
Inventories	99.9	103.1	106.1
Inventory/Orders		1.63	1.68
Inventory/Shipments		1.66	1.70
Orders/Shipments		1.02	1.01
American Iron and Steel Institute			
Raw Steel Shipments (million net tons)	8.9	9.2	9.2



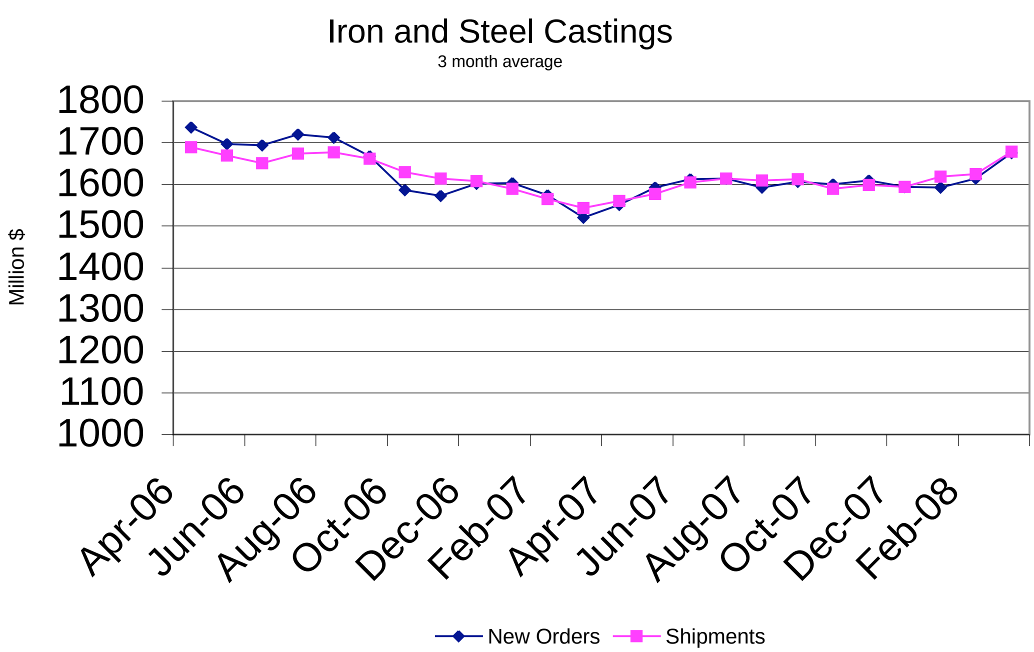
SFSA Postcards



SFSA Postcards



AISI Data



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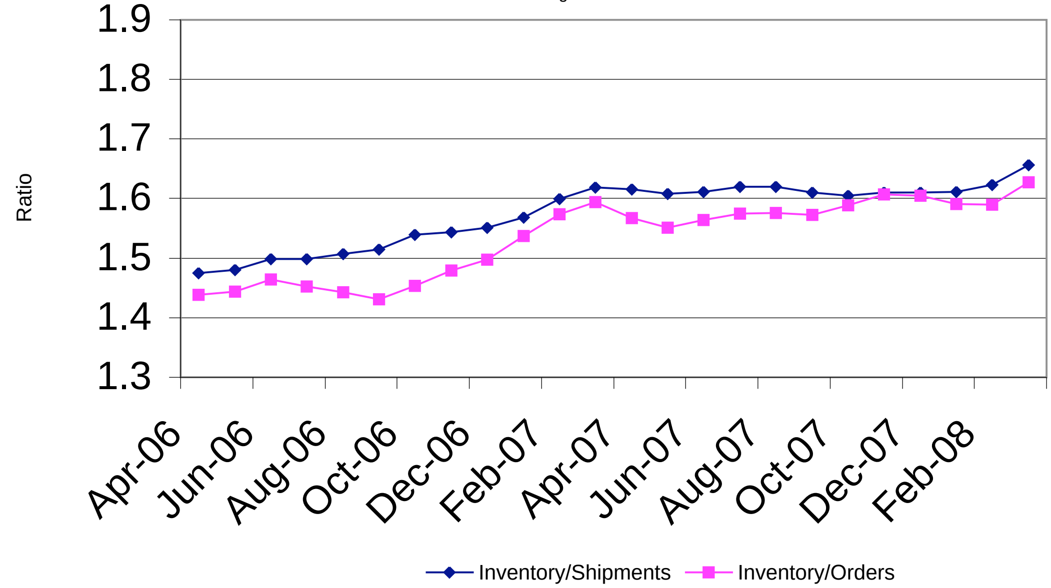
Nondefense Capital Goods less Aircraft

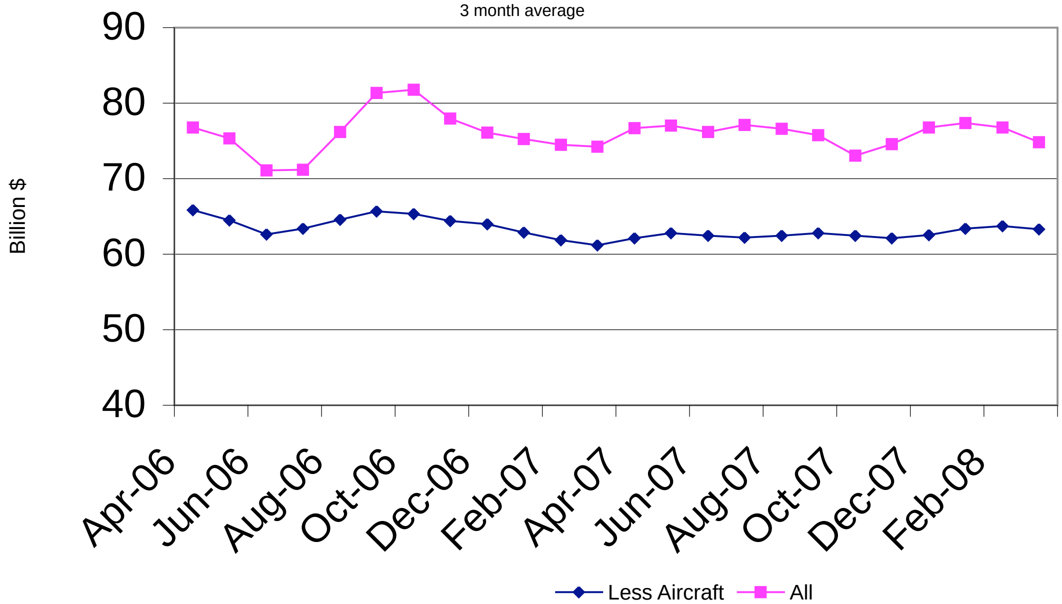
3 month average



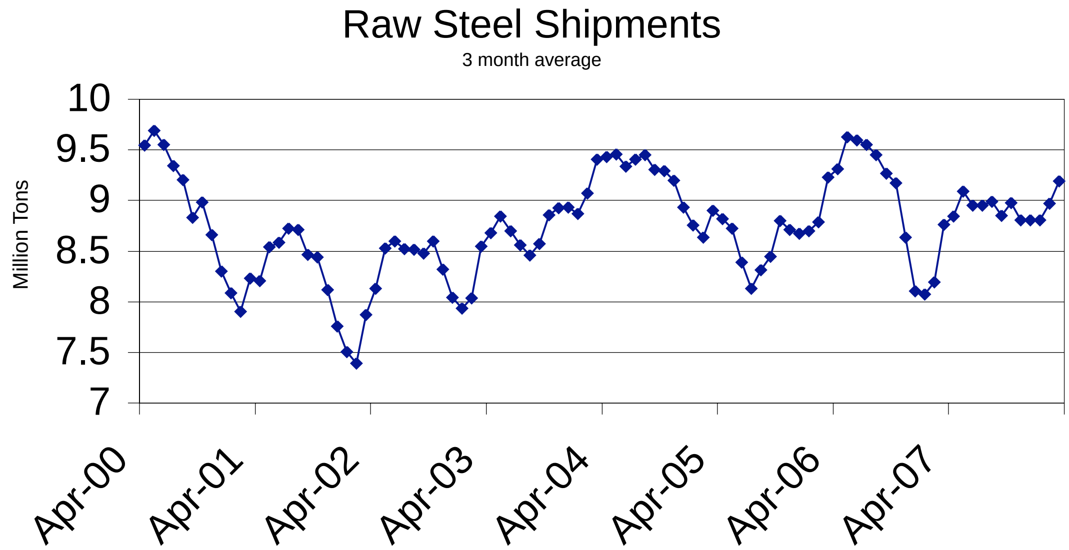
Department of Commerce

Nondefense Capital Goods New Orders

3 month average



Department of Commerce



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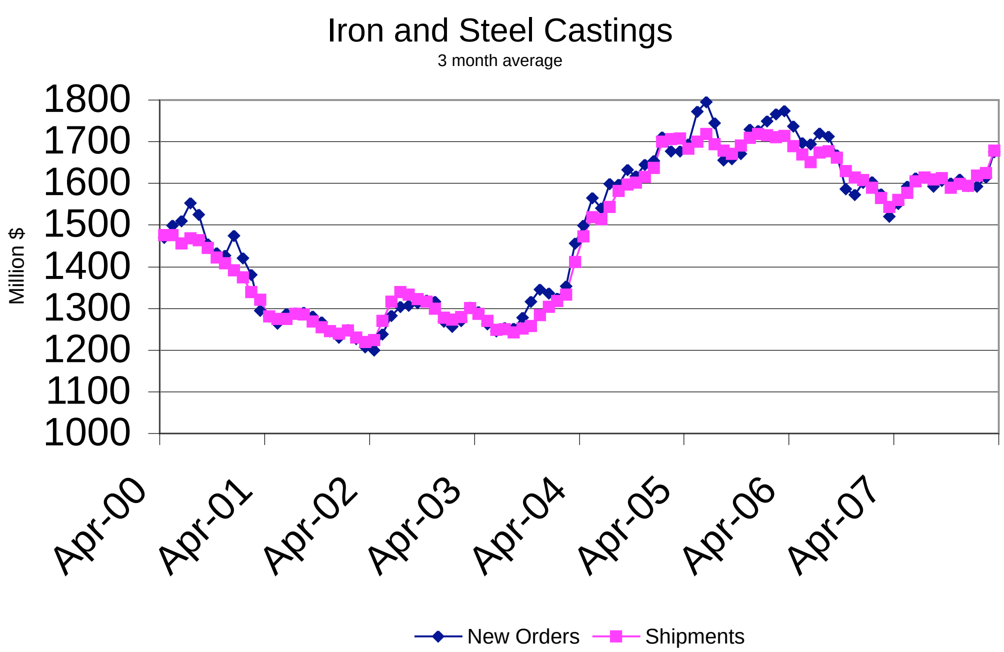

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