

Midwest Ferrous Scrap Index

Methodology and Price Specifications

American Metal Market (AMM) is part of the *Metal Bulletin Group*, a leading global provider of information and prices for the non-ferrous metal, steel and scrap markets, which has been producing price assessments and indexes for over a century.

AMM's price reporters are required to abide by a code of conduct and clear pricing procedures during their market reporting and pricing activities. *AMM* is completely independent and has no vested commercial interest in any of the markets it prices, including no interest in the level or direction of the indexes it publishes.

The aim of this document is to provide a clear overview of *AMM's* methodology and specifications to produce the *AMM US MW scrap indexes*.

If you have any questions, please contact *AMM's* Scrap Editor Thorsten Schier (tschier@amm.com).

AmericanMetalMarket

Methodology rationale

AMM's rationale to adopt and develop the price discovery process and methodology to produce the Midwest Ferrous Scrap Indexes is to provide indexes that are a fair, consistent and transparent representation of the US Midwest Scrap markets for the trading period they measure.

The structure of the Midwest scrap market means that the large majority of the business is conducted in the first 10 days of the month. The trading period, or time window, during which data is collected from the 1st working day up to the 10th of the month. *AMM* publishes the scrap indexes on the 10th of each month, unless that falls on a weekend or public holiday, in which case the Index is published on the following working day.

The *AMM* US Midwest Scrap Indexes include material that will be delivered within 30 days to the mill. Spot business concluded after the 10th of the month will not be included. Any material that is delivered as part of a long-term contract is excluded from the calculation process.

Specifications and reference units

AMM publishes three Midwest Ferrous Scrap Indexes

- **No. 1 heavy melting scrap**
- **No. 1 busheling**
- **Shredded**

For each index, *AMM* has defined clear specifications that detail the material's characteristics or quality, location, delivery and payment terms and the minimum volume accepted. These specifications have been determined in consultation with market participants and following industry convention. Currency and volume units are in line with recognized Midwest scrap market trading conventions.

AMM's Reporters ensure that the information they receive matches the following specifications:

No. 1 Heavy Melting Scrap

Price	US dollars per gross ton
Pricing Point	Delivered Midwest mill
Delivery Points	Any mill in Illinois, Indiana, Michigan, Wisconsin, Iowa and NW Ohio
Specifications	ISRI Grade 200 No. 1 heavy melting steel. Wrought iron and/or steel scrap 1/4 inch and over in thickness. Individual pieces not over 60 x 24 inches (charging box size) prepared in a manner to insure compact charging. ISRI Grade 202 No. 1 heavy melting steel 5 feet x 18 inches. Wrought iron and/or steel scrap 1/4 inch and over in thickness. Individual pieces not over 60 x 18 inches (charging box size) prepared in a manner to insure compact charging.
Material Origin	All origins
Trade Size	500 gross tons
Delivery Window	Within 30 days
Payment Terms	Net 30 days post delivery
Publication Date	10th of each month (or following working day)
Publication Time	4 p.m. EST

No. 1 Busheling

Price	US dollars per gross ton
Pricing Point	Delivered Midwest mill
Delivery Points	Any mill in Illinois, Indiana, Michigan, Wisconsin, Iowa and NW Ohio
Specifications	ISRI Grade 207 No. 1 busheling. Ferrous busheling. Compliant to ISRI Specifications 7 No. 1 busheling. Clean steel scrap, maximum size 2 feet by 5 feet, including new factory busheling (sheet clippings, stampings, etc.). May not include old auto body and fender stock. Free of metal coated, limed, vitreous enamelled, and electrical sheet containing over 0.5-percent silicon.
Material Origin	All origins
Trade Size	500 gross tons
Delivery Window	Within 30 days
Payment Terms	Net 30 days post delivery
Publication Date	10th of each month (or following working day)
Publication Time	4 p.m. EST

Shredded

Price	US dollars per gross ton
Pricing Point	Delivered Midwest mill
Delivery Points	Any mill in Illinois, Indiana, Michigan, Wisconsin, Iowa and NW Ohio
Specifications	ISRI Grade 211 Shredded scrap. Homogeneous iron and steel scrap magnetically separated, originating from automobiles, unprepared No. 1 and No. 2 steel, miscellaneous baling and sheet scrap. Average density 70 pounds per cubic foot.
Material Origin	All origins
Trade Size	500 gross tons
Delivery Window	Within 30 days
Payment Terms	Net 30 days post delivery
Publication Date	10th of each month (or following working day)
Publication Time	4 p.m. EST

What happens if the material is downgraded on delivery?

The transaction is done on the expected delivery specifications, including grade and payment terms, and the price settled on this basis. If it turns out to be different, then that is an issue between the two parties who entered the contract, and the index is not revised retroactively.

Payment Terms

The basis of the payment terms is based on typical commercial practice in the Midwest scrap market. Transactions that are conducted on different payment or credit terms will be adjusted back to the base specifications, taking into account discounts and standard commercial terms.

Index Calculation

The index methodology is a tonnage-weighted calculation of transactional data which are reported to *AMM* by market participants conducting trades on a delivered Midwest mill basis.

Each index consists of two sub-indexes, one for the sell side and one for the buy side of the market, based on information received from sellers and buyers of scrap.

The two sub-indexes are each based on a tonnage-weighted average of normalized trade information received by *AMM* reporters.

The two sub-indexes are then combined with equal weighting to ensure that the market is fairly represented across all participants.

All the input data that vary by more than 10 percent from the average of the two sub-indexes are excluded and the index is recalculated.

The publish index figure is the straight average of the two sub-indices.

Why is the index calculation divided into buyers and sellers?

The *AMM* methodology is designed specifically to balance out any bias in the market to create the most representative and objective price. The index is split into the two groups of buyers and sellers to balance a number of factors, including tonnage bias, where more transactions are reported by one side or the other. In this case, if more tonnage is reported on one side, it will contribute to the accuracy of the sub-index, but it does not over influence the final index calculation. By splitting the calculation into two, influence from potential selective reporting of data is also reduced.

Data quality and verification

Where transaction data submitted appears out of line or anomalous, participants may be asked to provide evidence of the transaction in the form of a signed contract. Participants will have the right to decline to provide this evidence and *AMM* will have the right to exclude prices that cannot be substantiated.

The number of trades available for use in the indexes does vary depending on the market conditions prevailing. The index calculation methodology does not set any minimum number, or threshold, of transactions to be gathered on which to base the index.

Data is submitted prevalently by phone and e-mail survey. All data received is kept confidential.

Data collection criteria

AMM aims to collect as much data from the greatest number of counterparties as possible each month in its attempt to represent the majority of the market.

The more data collected, the larger the proportion of the market that is represented and the more statistically significant the final figure will be. *AMM* is constantly looking to expand its contact list in order to provide the market with a reliable and representative index price.

All market participants who are conducting business on a delivered Midwest mill basis are permitted to contribute.

Both buyers and sellers are equally represented in the final Index price in order to avoid bias. However, different numbers of inputs may be entered from each side of the market into each of the two sub-indexes.

In the unlikely situation that a single market participant provide more than 50% of the transaction data, *AMM* will collect from other market participants and include in the calculation of the index other data including bids, offers, and sources' own assessment or indication of value. Minimum tonnage of 500 gross tonnes is applied to non-transaction data.

What data does *AMM* request from market participants?

AMM requires that its market contacts report data in good faith and report information with full transparency.

In order to create the most representative Index, *AMM* requests the following aspects of the transaction for inclusion in the calculation:

- Transaction price or average transaction price
- Material type (based on ISRI specifications)
- Origin
- Tonnage
- Delivery point
- Delivery period
- Payment terms
- Any other relevant data to pricing (e.g. distressed sale.)

Procedure to ensure consistency in the index calculation process

The US MW Scrap indexes are calculated by a first reporter, peer-reviewed by a second reporter, and always signed-off prior to publication by a senior member of the editorial team. The peer review process is in place to make sure that the pricing procedure and the methodology are correctly and consistently applied.

Index Publication

The Index is published on the 10th of each month at 4 p.m. EST from our New York office. All data must be received by 12 p.m. EST. Any data received after 12 p.m. EST on the day of publication will not be included in the Index calculation.

In the event of the 10th of the month falling on a public holiday or weekend, the Index will be published on the following working day.

Data can be supplied in a number of ways to maximize convenience. This can include by phone or email to the normal *AMM* contact or to editor@amm.com.

***AMM's* Scrap Prices Portfolio – Indexes and Assessments**

AMM publishes a comprehensive list of scrap market prices including indices and assessments. The assessments are designed to provide a clear and fair representation of the spot price in the various regional markets. The *AMM* Midwest Scrap Indexes aims to reflect scrap prices for the entire Midwest region. The index price differs from the assessment figure due to a difference in the methodologies. However, we expect both price series to correlate strongly due to the overlapping nature of many of the data points.

Appendix:

About AMM

American Metal Market (*AMM*), founded in 1882, over its long history has established itself as the unrivaled leader in metals news and pricing in North America.

AMM and sister publication *Metal Bulletin* are part of the *Euromoney Institutional Investor Plc* group, a £1-billion (\$1.6-billion) business publisher that is publicly listed on the London Stock

Exchange and is majority owned by *Daily Mail & General Trust Plc*.

With around 7,500 subscribers, *AMM* covers the full array of metals, although its particular strengths are in steel and ferrous scrap.

AMM disseminates its information through a daily electronic newspaper, its website *amm.com* and a monthly magazine. In all, more than 10,000 stories are published every year and more than 1,000 different prices are assessed regularly across a range of metals, grades and locations.

A Strong History in Pricing

AMM has built a reputation as a trusted source in pricing assessment. Its prices are used as benchmarks in contracts between buyers and sellers in a variety of markets, but perhaps have the strongest traction in ferrous scrap.

Ferrous Scrap

For the past several decades, *AMM* has assessed and published prices for up to 30 different grades of ferrous scrap in 20 different cities. Some of these are export yard or broker buying prices, but the majority are assessments of the prices paid by consumers—steel mills and, for certain grades, steel foundries.

AMM's price assessments are based on the reporting staff's regular interaction with scrap buyers and sellers. The assessments consider actual transactions, although the calculation of the price depends to a great extent on the experience and expertise of *AMM's* editorial team.

The prices have become widely used by the industry and the assessments in certain cities, most notably Chicago, are recognized as the undoubted benchmarks used for establishing contract prices and surcharges.

The Ferrous Scrap Market

The ferrous scrap market in the United States is quite different from many other commodity markets. The vast majority of business is done on a monthly contract basis, with the bulk of the negotiations typically taking place during the first week of the month and the vast majority of business completed in the first 10 days of the month.

AMM assesses the market throughout the month, but typically updates the prices once or twice and usually completes a final revision by the 10th of the month.

American Metal Market

707 Grant Street, Suite 1375
Pittsburgh, PA 15219
412 765 3580

1120 Avenue of the Americas, 6th Floor
New York, NY 10036
646 274 6257

www.amm.com

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