

Methodology

India Domestic Steel Scrap



About Assessment

SteelMint’s assessment of melting scrap reflects the different grade of ferrous scrap generated and traded in domestic market. SteelMint gathers and verifies information from buyers and sellers active in the physical spot market. The

data obtained by SteelMint, are normalized for quality, dimensions, delivery timing, location and other terms of trade to the specifications.

Methodology Overview

Mandi Gobindgarh in Punjab has a rich concentration of induction furnace (IF)-based steel producers which source steel scrap from Punjab-based and out-of-state scrap traders and producers as well as imports.

Steelmint conducts daily assessment of different grades of melting scrap steel cargoes that are sold on a delivered at plant (DAP) basis in Mandi Gobindgarh. The melting scrap is mostly produced by scrapping auto-component, plants and building, with a mix

of discarded household, white goods and automobile. Typically HMS scrap has a metallic yield of around 90-98% in the furnace with a 2-3% variation.

As with all Steelmint assessments, analysts and management are equidistant from all market participants and do not favour or disfavour any transaction or market participant.

Assessment Specification

Particulars	Specifications
Index	End-Cutting
Other Assessments	LMS (Light Melting Scrap), HMS (80:20) Selected, CR Busheling Scrap, Pipe cutting
Quantity	50 MT - 100 t
Delivery Terms	Delivered at plant (DAP), (Induction Furnace) site located in Mandi Gobindgarh, Dist. Fatehgarh (Punjab)
Payment Terms	0-7 days after delivery
Delivery Period	Within 0-3 days
Assessment Frequency	Daily
Data Submission (IST)	11.00 AM to 4.30 PM
Publication (IST)	1.00 PM & 5.00 PM

Key Study*

There are six categories of scrap traded

- **LMS (Light Melting Scrap)** LMS is commonly known as old scrap and is considered as base price to calculate the different higher grades of scrap. If considered for purchase by furnace it's a lightweight scrap with a yield of 88-90% majorly tin plate, cycle parts, etc.
- **HMS 80:20 (Selected)** this is heavy selected scrap with yield of 94-96%, items include auto scrap, tin plate, house hold steel scrap wastage etc. Ideal truck load is ~20 mt.
- **End Cutting** also referred as blue steel its mainly waste of finish steel product like round, rebar, structure, wire, pipe etc, with yield 96-98%.
- **CR Busheling** also known as CR Sheet Cutting/Busheling scrap is a wastage of CR auto/white goods grade scrap with high quality chemistry, generally used in making alloy steel. Its yield is similar to End cutting but the chemistry property is superior, with yield capacity of 97-99%.
- **Turning Boring Scrap** Turning boring scrap is approx. 2 - 2.5 million tone per annum in which 15-20% market share is Punjab (0.4 million tones per annum) with major share in Ludhiana belt. It is generated from Steel chips in CNC machine shop during turning boring process while drilling or any machining operations. Turning Boring scrap

is also referred as CNC Machine Shop Turning, with yield capacity of 85 to 90%

- Two key **consuming** scrap regions are **Mandi Gobindgarh** and **Ludhiana**. There are about 120-125 furnaces with a yearly melting capacity of over 5.5 million tonnes
- Total scrap **consumption** in Punjab is about 4.8 million tonnes per annum. Most of which is consumed by Induction furnaces located in Mandi gobindgarh & Ludhiana.
- Punjab imports around 0.8 mn t scrap, scrap, mostly from UK/USA/Europe/South Africa (Including – ICD Ludhiana and Chawapayal/Samralain FY'22.
- Domestic scrap generation is approx 1.5 million tonnes per annum which is generated largely through automotive, their ancillary units, engineering companies along with wastage of finished steel and most of the deals reported between plants to plants.
- Scrap procurement from other states around 2.5 million tonnes scrap like UP, Haranya, Rajasthan, West Bengal & Delhi/NCR region.
- Furnace producers in mandi buys scrap around 4.8 mnt per annum and about 0.5 mn t Sponge Iron.
- Ideal payment term is (0-7 days) after delivery. Price of cargo is delivered at plant location(DAP).

*Last updated: Mar 2023

Melting Scrap (Mandi Gobindgarh-Punjab)

Scrap Type Name	Yield	Spread (Difference from Basic)
LMS, Light Melting Scrap (Old scrap)	88-90%	Basic + 500-1,000
HMS 80:20 (Selected)	94-96%	Basic + 2,500-3,000
End Cutting (Structure/Rebar)	97-98%	Basic + 5,500-6,000
CR Busheling	98-99%	Basic + 6,000-6,500

Note: The spread is not fixed and changes as per demand & supply

LMS (Light Melting Scrap)/ Old scrap



End Cutting (Plates & Structural Scrap)



HMS 80:20 (Selected)



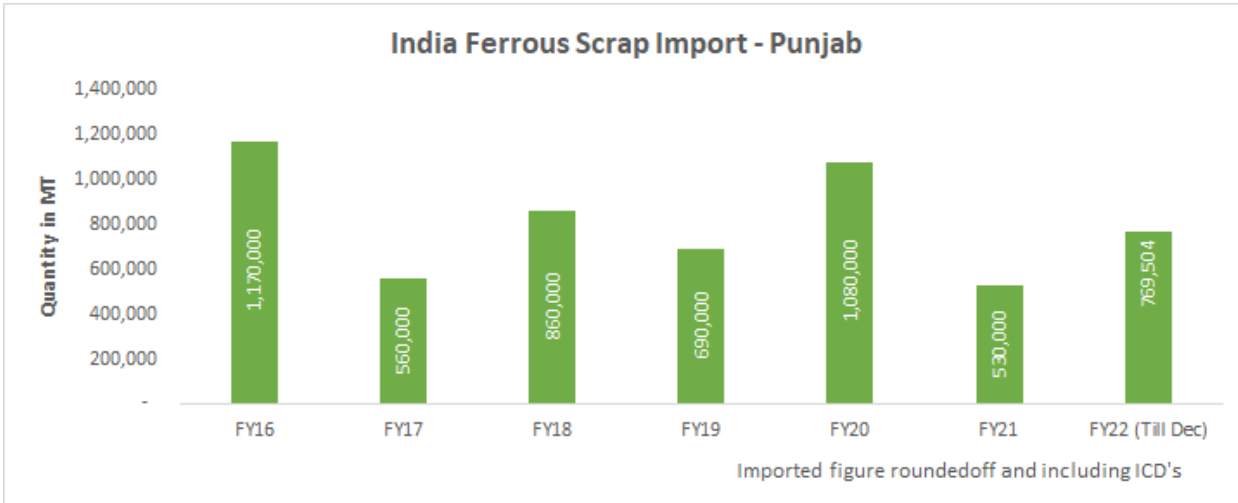
CR Busheling Scrap



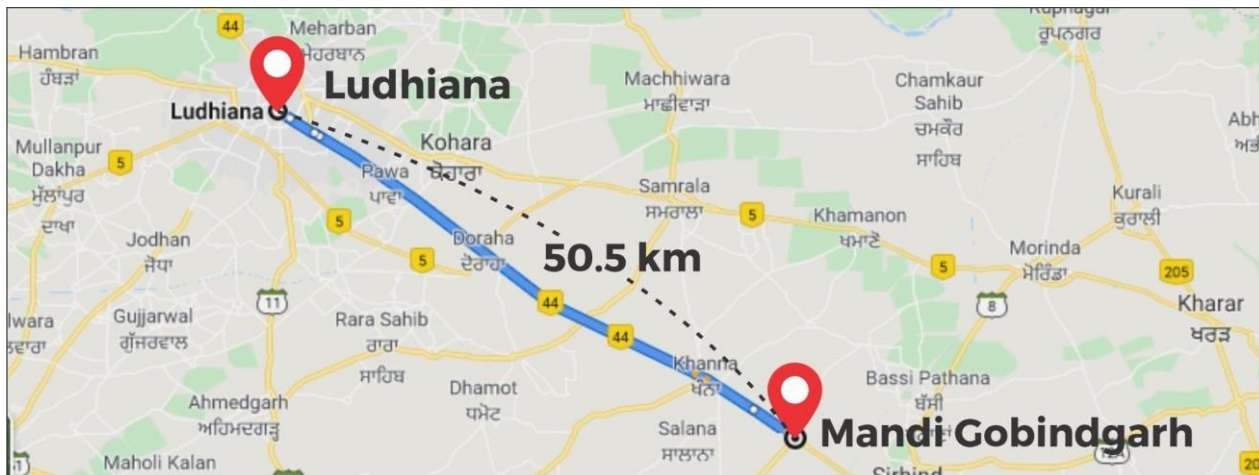
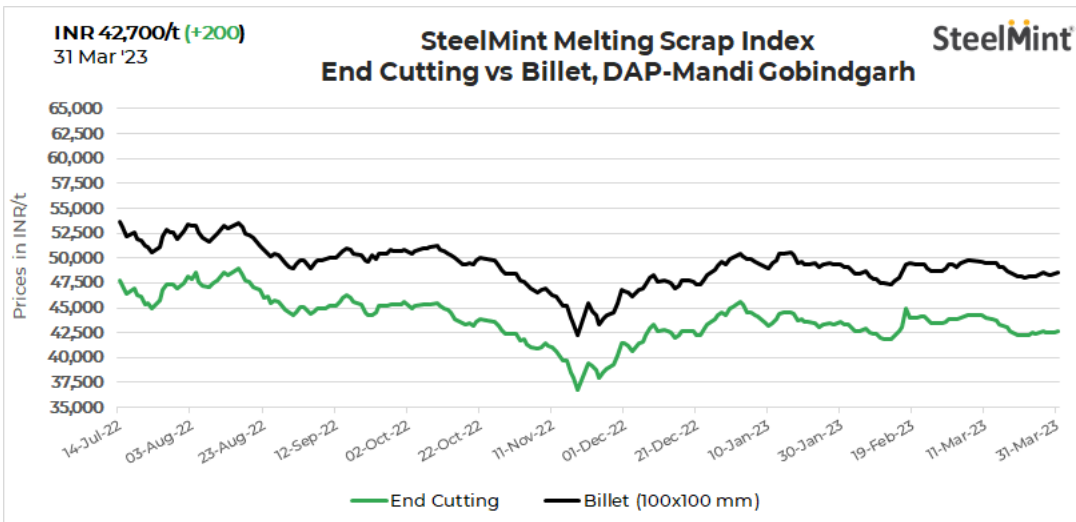
Turning Boring Scrap



India's Ferrous Scrap Import (Punjab)



Melting Scrap & Ingot Prices, Mandi Gobindgarh



Stage	Details
Data Collection	<ul style="list-style-type: none"> ● Based on the publishing date and time, data is collected from market participants. The data is primarily collected through telephone calls, emails and messenger platforms such as WhatsApp, etc. ● As per our Data Partner (DP) policy, a broad mix of DPs from buyers, sellers, traders and manufacturers, etc. are approached so that the data collated gives us a correct picture of the market. ● Another important sources of price data are the results of auctions and tenders being hosted by PSUs or private entities. ● Every effort is made to ensure that deals of only reputed and trustworthy producers and trading firms are included in the price development mechanism. ● The data collected is subsequently arranged as per established hierarchies. ● Highest importance in the price calculation process is assigned to confirmed deals as part of which either the buyer or seller provided details of the transaction. ● Confirmed offers and bids too are considered valuable for the pricing process.
Data Arrangement	<ul style="list-style-type: none"> ● In periods when market activity is sluggish, analysts will poll market participants for indicative or tradable price levels for that day. ● Deals or prices obtained closer to the publishing date and time would be given preference over older deal(s). ● Similarly, deals involving significantly large volumes or deals involving major market participant as against smaller players would be given preference and the hierarchy would be likewise established.
Normalisation	<ul style="list-style-type: none"> ● The normalisation would be carried out for four different categories of data i.e., transactions, indicative prices, bids and offers. ● SteelMint would then normalise the four groups of data based on the sample types, chemical specifications, delivery dates and terms, freights, etc. ● If the normalised price of one submission in a group significantly differs compared with the remaining post-normalisation group submissions, SteelMint will reconfirm the details of the sample. ● If the submitted data is incomplete, opaque and/or there is disagreement between the parties to the transaction or the normalisation result shows significant bias compared with the market level, the submission sample will be removed.
Data Outlier Elimination	<ul style="list-style-type: none"> ● SteelMint adopts 'standard deviation' approach to eliminate the outliers of data sets seen in price collection. The normalised values are collated and the mean value is determined. ● The values lying outside the Mean + Variance (upper limit) and Mean - Variance (lower limit) are discarded for the purpose of price discovery
Price Finalisation	<ul style="list-style-type: none"> ● SteelMint uses volume weighted approach to arrive at the final price index where the volume-based deals are available in the data collated in an adequate number. ● Alternatively, a simple average is calculated by giving the highest weightage to confirmed transactions in addition to offers, bids and indicative prices. ● Expert judgment would be exercised by our analysts in each specific scenario.

Price Calculation Process

Prices are calculated as a simple average of normalized prices, with data points being assigned to either T1 or T2 categories. All confirmed deals are assigned T1 classification with a simple average of T1 normalized prices assigned a 50% weightage in the

final price. Other prices such as bids, offers and indicative prices are classified as T2 with an average of normalized prices assigned a 50% weightage in the final calculation.

Exclusion of Market Data

Steelmint analysts will exercise judgment in excluding market data when a deal, bid, offer and indicative price is significantly higher or lower than average price in the market in that week.

Landed price of similar scrap cargoes imported from Dubai are also referred to occasionally to check if the domestic bid/offer/deal price lines up with the imported price, as Gobindgarh mills use a mix of domestic and imported scrap in the furnace burden. If a domestic price seems to be much higher than the Dubai price, it may be excluded as long as other

domestic data points are largely in line with the import price. Dubai cargoes typically land in India within a week and have smaller lot sizes that make them quite similar to domestic scrap supplies in pricing and delivery terms.

Exclusions are not automatically done based on any set formula but are made only in cases when the feedback from the market and application of mind by Steelmint's experienced analysts justifies such a change.

Rationale Publication

A rationale for the assessment which will include a summary of the type and number of data points considered for price calculation. Reasons for exclusion of deals and premium for

atypical cargoes, if any, are published on the day of publication of prices to provide transparency to the assessment process.

Correction of Assessments

Steelmint will publish corrections of assessments if an error has resulted due to faulty entry of data or an unintentional omission of data point in the price calculation process. However, prices

will not be corrected or updated in any manner if new deals or bids/offers become available after the weekly timestamp.

Record Keeping

Records of price sheets used in assessment, calculation, rationale and notes taken by reporters during the data collection and discussion process with contacts are stored

securely in physical or electronic forms for a reasonable period of time.

Methodology Review

The basic purpose of any pricing process is to accurately reflect market fundamentals and as such the methodology is open to review as market conditions, specifications and modes of trading and pricing contracts change. Once editors and the management decide to review the methodology, sufficient time

will be provided to external stakeholders to comment on the proposed methodology changes via email or other appropriate communication tools. Any final change to the methodology will only be made after completing an external consultation process.

SteelMint's Scrap Assessments for Other Indian Markets*

Place	Grade	Delivery Terms	Time (IST)	Frequency
Mandi	LMS (Light Melting Scrap)	DAP	13:00, 17:00	2
	HMS(80:20)	DAP	13:00, 17:00	2
	End Cutting (Structure/Rebar)	DAP	13:00, 17:00	2
	CR busheling	DAP	13:00, 17:00	2
Ludhiana	Turning & Boring	DAP	13:00, 17:00	2
	End Cutting	DAP	13:00, 17:00	2
	CR Busheling	DAP	13:00, 17:00	2
	CI-(Cast iron scrap)	DAP	13:00, 17:00	2
Durgapur	HMS(80:20)	DAP	13:00, 17:00	2
Raipur	End Cutting	DAP	13:00, 17:00	2
	HMS(80:20)	DAP	13:00, 17:00	2
Ahmedabad	HMS(80:20)	DAP	13:00, 17:00	2
Ex-Alang	HMS(80:20)	Ex-Yard	13:00, 17:00	2
Jalna	HMS(80:20)	DAP	13:00, 17:00	2
	CR Busheling (Loose)	DAP	13:00, 17:00	2
Mumbai	HMS(80:20)	DAP	13:00, 17:00	2
Chennai	CR Busheling (Bundled)	DAP	13:00, 17:00	2
	HMS(80:20)	DAP	13:00, 17:00	2
	HMS(90:10)	DAP	13:00, 17:00	2
	Turning & Boring	DAP	13:00, 17:00	2
Hyderabad	HMS(80:20)	DAP	13:00, 17:00	2
	HMS(90:10)	DAP	13:00, 17:00	2

* Daily assessments, last update on Saturday is done at 16:00

DAP- Delivered at Plant Site

We Invite Your Participation

SteelMint's Scrap index will enable industry participants to base their trades on a benchmark price and we encouragingly invite your active participation to reflect a wider and more representative set of fundamentals. Please do send your feedback by writing to us at info@steelmint.com or contacting the support team on **+91 97700 56666**.

DATA IS OUR DNA

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