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Building futures through sustainable steel

Anti-dumping Investigation 584

Merchant Bar exported from Taiwan

Exporter Verification Briefing

21 September 2021

THE GOODS

Difference between Merchant Bar and Hot Rolled Structural Sections (HRS)

[NOT The Goods]

	Merchant Bar (also hot rolled off mill)	Hot-Rolled Structural Sections
Shape/Size		Universal Beams (I-Beams) 
		Universal Columns (H-Beams) 
	Small Angles (equal and unequal) Combined leg length ≤ 200mm 	Large Angles (equal and unequal) Combined leg length > 200mm 
	Small Channels Height ≤ 130mm 	Large Channels Height > 130mm 
	Flat Bar (rectangular sections) 	
Application	Lighter construction applications eg. trusses, braces, balustrades	Heavier structural construction applications eg. building frame, roof beams
Specification	Mainly AS/NZS 3679.1:2016 Structural Steel Part 1: Hot-rolled bars and sections	Mainly AS/NZS 3679.1:2016 Structural Steel Part 1: Hot-rolled bars and sections
Key HS Tariff Codes	7214.91 (flats), 7216.10 (channels < 80mm), 7216.21 (angles <80mm), 7216.31 (channels > 80mm), 7216.40 (angles > 80mm) + possible other + alloy codes	7216.31 (channels > 80mm), 7216.32 (I-sections), 7216.33 (H-Sections), 7216.40 (angles > 80mm) + possible other + alloy codes

Goods Description

The goods are steel bars and sections in the following shapes and sizes, whether or not containing alloys:

- **“Flat bars” (Rectangular sections)** that have a thickness of 4.75 millimetres (mm) or greater and have a width greater than 17 mm and less than 165 mm;
- **“Channels” (U sections and C sections)** that have a web thickness greater than 3 mm and are of a height greater than 70 mm and less than or equal to 130 mm; and
- **“Equal angles” and “unequal angles” (L sections)**, that have a thickness greater than 2.5 mm with a combined leg length greater than 40 mm and less than or equal to 200 mm.

“Flat bars” include "modified rectangles", of which two opposite sides are convex or concave arcs, the other two sides being straight, of equal length and parallel. “Channels” include both parallel and tapered flanges. Steel sections in the dimensions described above, that have minimal processing, such as cutting, drilling or coating (other than coating or plating with zinc or a zinc alloy) do not exclude the goods from the subject of this application.

Goods excluded from this application are:

- goods that are formed by welding or are cold-formed or slit from flat-rolled products;
- goods that are galvanised;
- goods that are of stainless steel; and
- goods that are in coiled form.

Goods that meet the above description are commonly, but not exclusively, referred to as “merchant bar”.

The Goods

Flat Bar

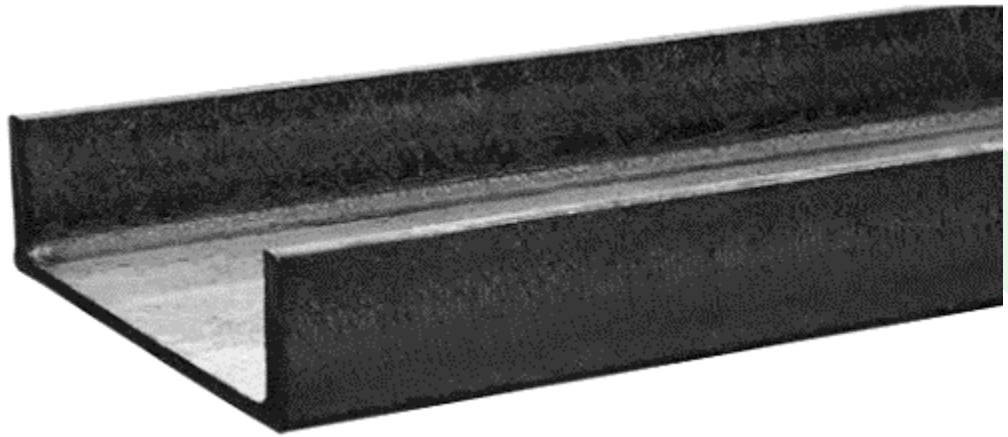
Square edge or round edge

Angles

Equal or unequal leg length

Channels

Parallel or tapered flange



The Goods - Applications

Typical Uses:

- Engineering construction
- Residential construction
- Non-residential construction
- Mining infrastructure
- Transport and storage
- Manufacturing

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The Goods

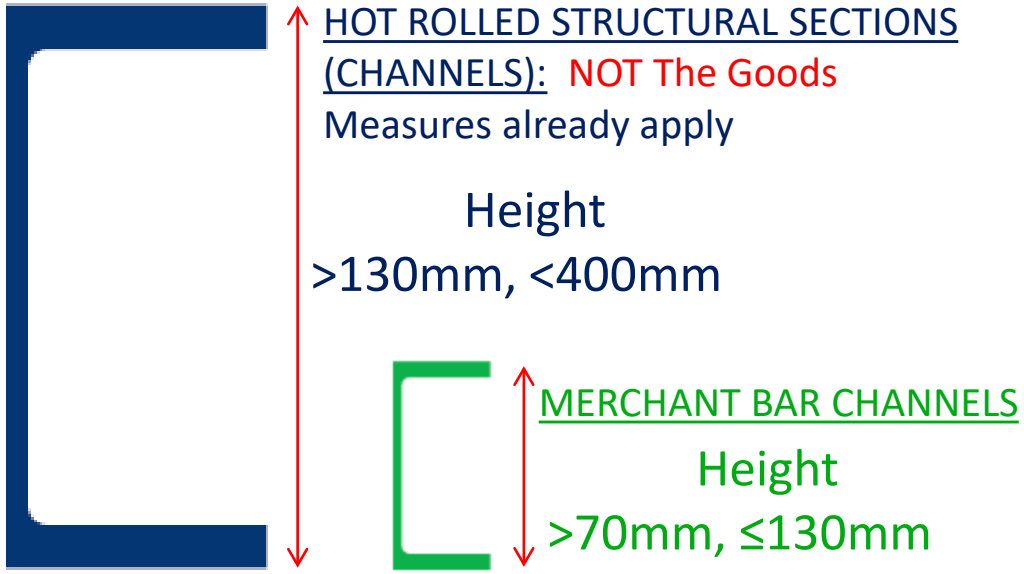
Some sizes of Channels and Angles are designated as Hot Rolled Structural Sections (HRS)

(Measures currently apply for a number of countries including Taiwan)

NOT The Goods

Universal Beams (I-beams)

Universal Columns (H-beams)



HOT ROLLED STRUCTURAL SECTIONS (CHANNELS): NOT The Goods

Measures already apply

Height

>130mm, <400mm

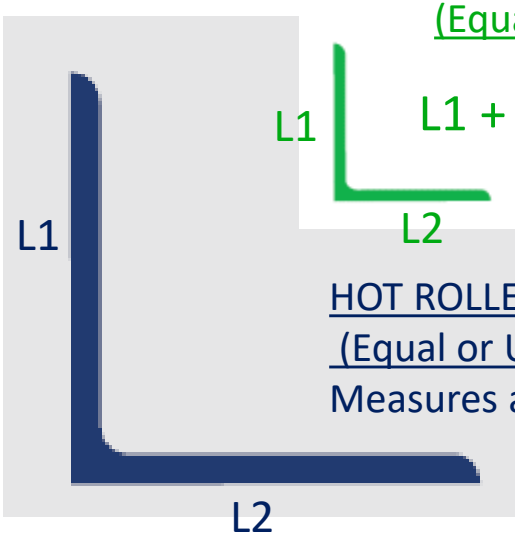
MERCHANT BAR CHANNELS

Height

>70mm, ≤130mm

MERCHANT BAR ANGLES (Equal or Unequal)

L1 + L2 ≤ 200mm



HOT ROLLED STRUCTURAL SECTIONS (Equal or Unequal Angles): NOT The Goods

Measures already apply

Combined leg length

L1 + L2 >200mm

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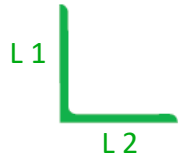
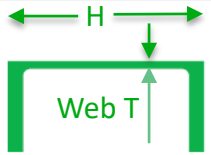
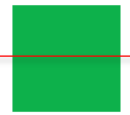
The Goods

Sizes and shapes produced by InfraBuild Steel

Product	Size (mm)	Section
Equal Angles	25x25x3 to 100x100x12*	
Unequal Angles	65x50x5 to 125x75x12*	
Parallel Flange Channels	75x40 to 150x75*	
Flat Bar (SEF)	20x10 to 150x25	
~~Square Bar~~	~~10 to 40~~	
~~Round Bar~~	~~10 to 90~~	

ANGLES: The Goods
Thickness > 2.5mm
Combined Leg Length L1 + L2
>40 and ≤ 200

CHANNELS: The Goods
H > 70mm, ≤ 130mm
Web T > 3mm

FLAT BAR: The Goods
W > 17mm, <165mm
T ≥ 4.75mm

Square Bar and Round Bar are NOT the Goods

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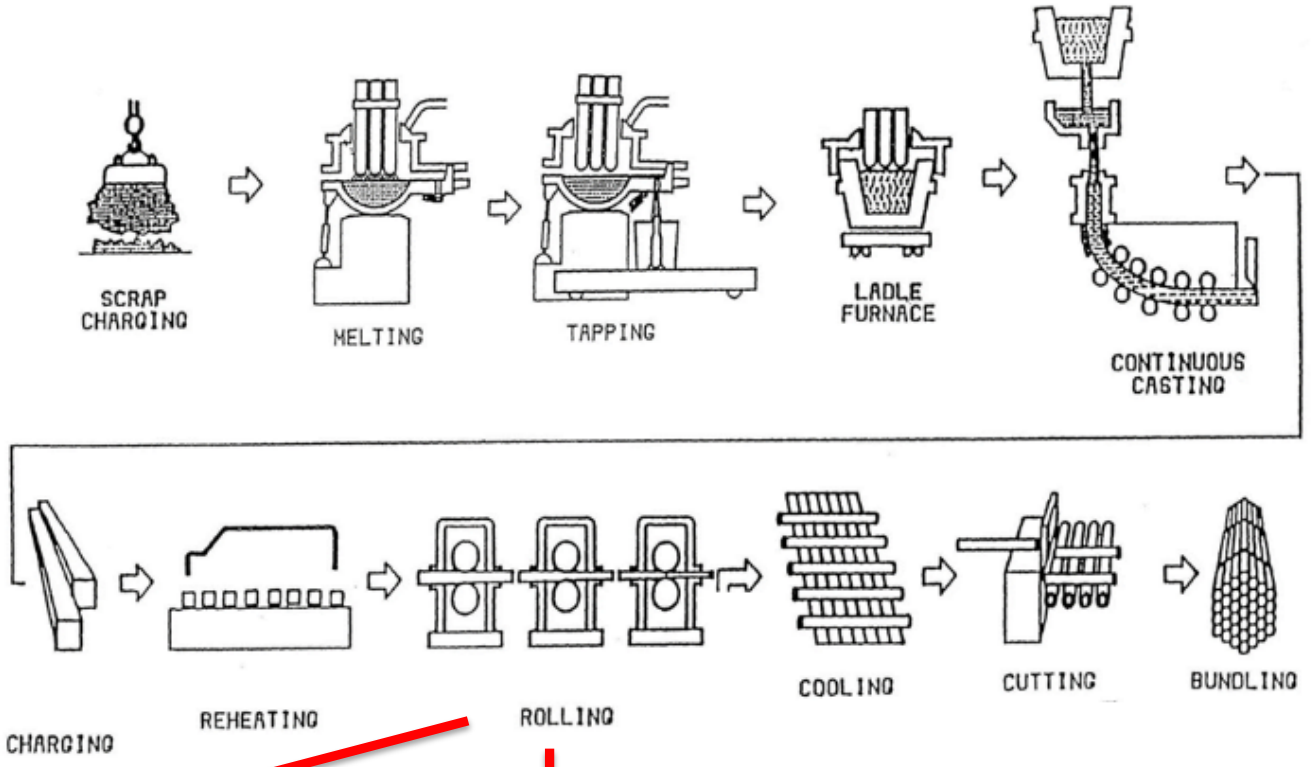
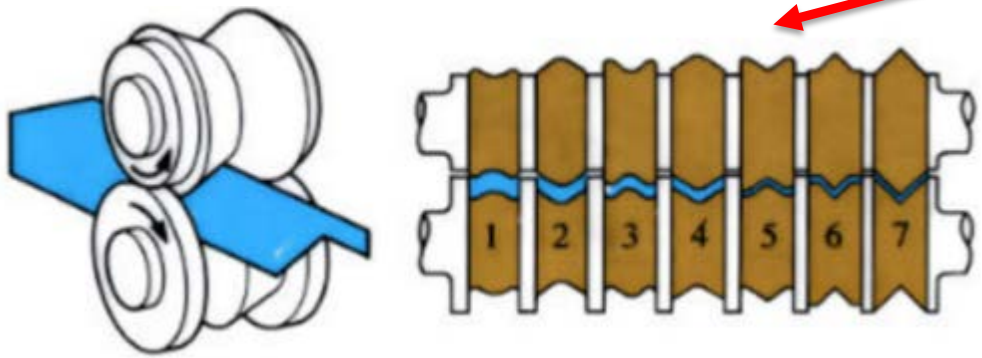
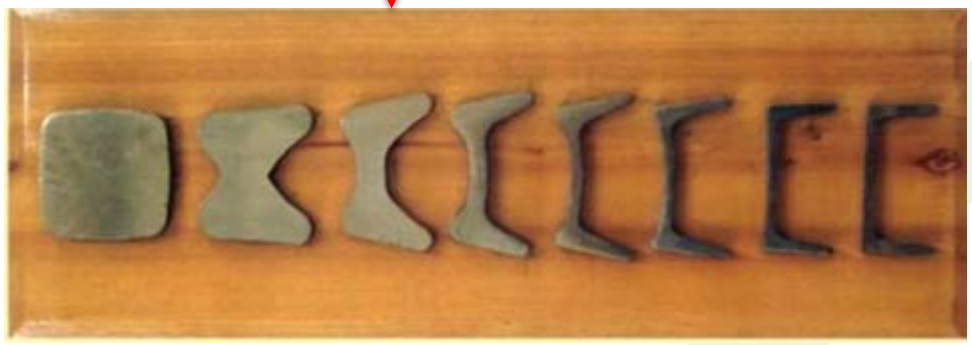
Merchant Bar Production Process

- Electric Arc Furnace (Inputs: scrap, fluxes, electricity, alloys. Output: liquid steel)
- Ladle furnace (final liquid steel chemistry and temperature adjustment for casting)
- Continuous casting (liquid steel solidified to produce billets)
- Rolling mill (billets rolled into shape profile, cut to length and bundled)







Model Control Codes (Initiation Notice)

Item	Category	Sub-category	Identifier	Sales Data	Cost data
1	**Quality**	Prime	P	Mandatory	N/A
		Non-prime	N		
2	**Shape**	Flats	F	Mandatory	Mandatory
		Equal angles	E		
		Unequal Angles	U		
		Parallel flange channels	P		
		Tapered flange channels	T		
3	**Grade -** Minimum yield strength specified by the Standard the product is certified to be produced to (measured in megapascals (MPa) or Newton per square millimetre (N/mm^2))[6]	Less than 275	250	Mandatory	Mandatory
		Equal to or greater than 275 and less than 330	300		
		Equal to or greater than 330	350		

The Goods: Pricing

Features and characteristics that affect price (eg. Model Control Codes)

- Shape
    - Equal angles and Square edge flats – base price
    - Channels and unequal angles attract a premium

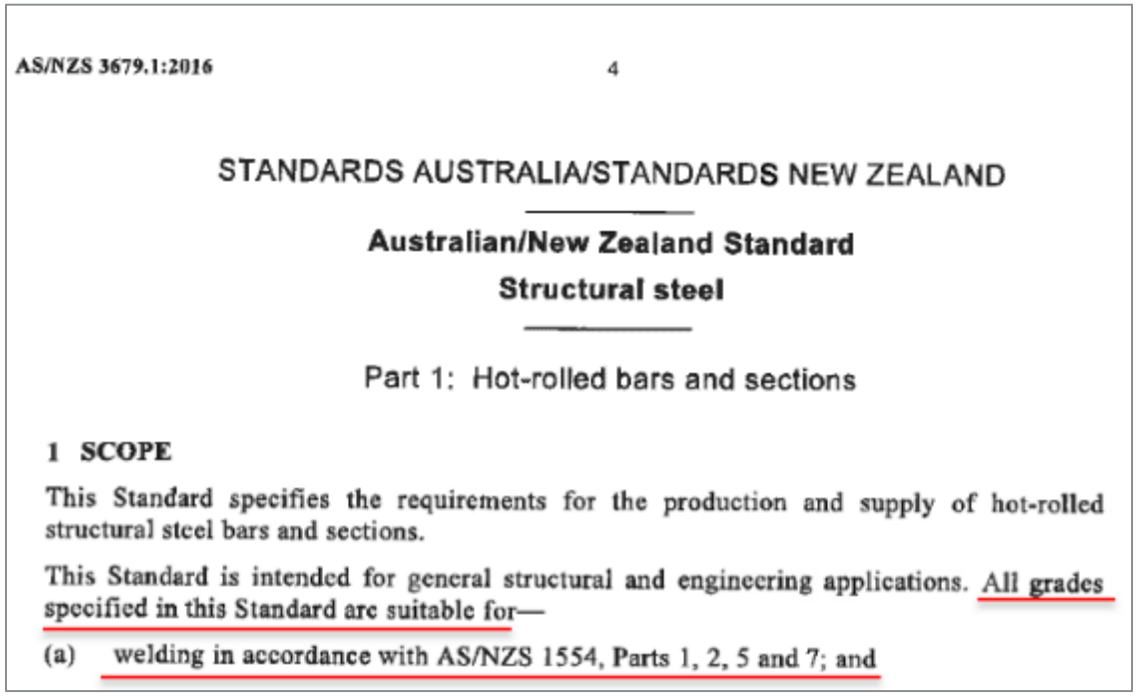
- Grade
    - XXXX% of merchant bar sold by InfraBuild Steel is AS/NZS 3679.1 Grade 300
    - Grade 350 and other grades eg. spring steels with high alloy content typically attract a premium

The Goods: Specifications

Merchant bar specifications/grades/product codes produced by InfraBuild Steel

AND likely exported from Taiwan

- Typically produced to the Standard: AS/NZS 3679.1:2016 Structural Steel Part 1: Hot-rolled bars and sections
- Standard grade: 300PLUS® (meets or exceeds minimum requirements of AS/NZS 3679.1 Grade 300) – approx. XXXX% of sales by volume
- Other grades:
  - AS/NZS 3679.1 Grade 350 - approx. XXXX% of sales by volume
  - Small number of other grades per customer request eg. spring grades (flat bar used for leaf springs)



AS/NZS 3679.1:2016 4

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard

Structural steel

Part 1: Hot-rolled bars and sections

1 SCOPE

This Standard specifies the requirements for the production and supply of hot-rolled structural steel bars and sections.

This Standard is intended for general structural and engineering applications. All grades specified in this Standard are suitable for—

(a) welding in accordance with AS/NZS 1554, Parts 1, 2, 5 and 7; and

NOTE: Some countries have two Standards applicable to Hot-Rolled Structural bars and sections.

- A "General Structure" Standard where the steel sections are mechanically fixed together eg. Bolted. These grades often don't have limits for key chemical elements (C, Si, Mn) specified and don't have a Carbon Equivalent Value (C_{eq} or CEV) limit specified.
- A "Welded Structure" Standard where grades have limits for key chemical elements specified and often a Carbon Equivalent Value (C_{eq} or CEV) limit specified.
- Australia only has a single Standard applicable with all grades specified as suitable for welding and a Carbon Equivalent value specified.

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The Goods: Specifications

VALID TO 31 DEC
2021

Australasian Certification Authority
for Reinforcing and Structural Steels Ltd

ACRS
PRODUCT CERTIFICATION

CERTIFICATE OF PRODUCT PERFORMANCE
Manufactured Product

Products assessed by ACRS to AS/NZS 3679.1:2016

To be read in conjunction with Certificate Number: 200207

豐興鋼鐵股份有限公司
FENG HSIN STEEL CO., LTD.

FENG HSIN STEEL CO LTD
TAICHUNG CITY, TAIWAN

Hot-Rolled Sections to AS/NZS 3679.1

Structural Sections	Range	300	300L0	350	350L0
Flats	3 to 25 mm thickness 12 to 200mm wide	✓			
Parallel Flange Channels	75mm to 150mm	✓			
Tapered Flange Channels	75mm to 150mm	✓			
Equal Angles	2.5 to 13 mm thickness 25 to 100 mm leg length	✓			
Unequal Angles	2.5 to 13 mm thickness 25 to 100 mm leg length	✓			

Tag

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The Goods: Specifications

Merchant Bar MCC Category "Grade"

Grade - Minimum yield strength specified by the Standard the product is certified to be produced to (measured in megapascals (MPa) or Newton per square millimetre (N/mm^2))[6]	Less than 275	250
	Equal to or greater than 275 and less than 330	300
	Equal to or greater than 330	350

IMPORTANT: Verification of Grades included by exporters in subcategory 250, 300 and 350

- Customers buy and sell steel based on the Standard Grade the steel is certified to.
- A test certificate demonstrates compliance to the grade referenced on it.
- Test Certificates are batch-based and only serve to demonstrate that a batch has met/exceeded the minimum requirements of a Standard.
- A Grade 250 batch test certificate yield strength result may well exceed the minimum yield strength requirement of a Grade 300 steel but may NOT be classified as 'Grade 300'

Refer: REP 499 (HRS) p 15

5.2.3 Classification issues – steel standards and mill test certificates

In this review, the Commission has verified the original purchase orders and other relevant documentation related to sales and has conducted discussions with representatives of steel manufacturers. On the basis of this evidence, the Commission considers that it is the usual practice for steel products to be manufactured, bought and sold on the basis of the grade of steel that is required and of the specifications in the standard that must be met. The subsequent provision of mill test certificates may be a requirement of the respective standard or may be requested by customers or relevant authorities to confirm that the required minimum specifications have been met.

In this review, the Commission has not found evidence that indicates that purchasers place their orders for steel on the basis of mill test certificates. The Commission does not consider that mill test certificates provide sufficient indication of what a customer's requirements are, or of the negotiated terms of the sale. Despite a mill test certificate providing confirmation that the steel has satisfied the requirements of a particular grade, prices of steel and other terms of sales are not negotiated on the basis of those certificates. As such, the Commission considers that the evidence found in this review indicates that it is not appropriate to classify like goods on the basis of mill test certificates.

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The Goods: [Merchant bar offer]

[Commercial in Confidence]

The Goods: [Merchant bar offer]

[Commercial in Confidence]

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THE EXPORTERS

PRODUCTION PROCESS

PUBLIC RECORD

TS Steel: Merchant Bar Production

- No steelmaking
- Billet purchased

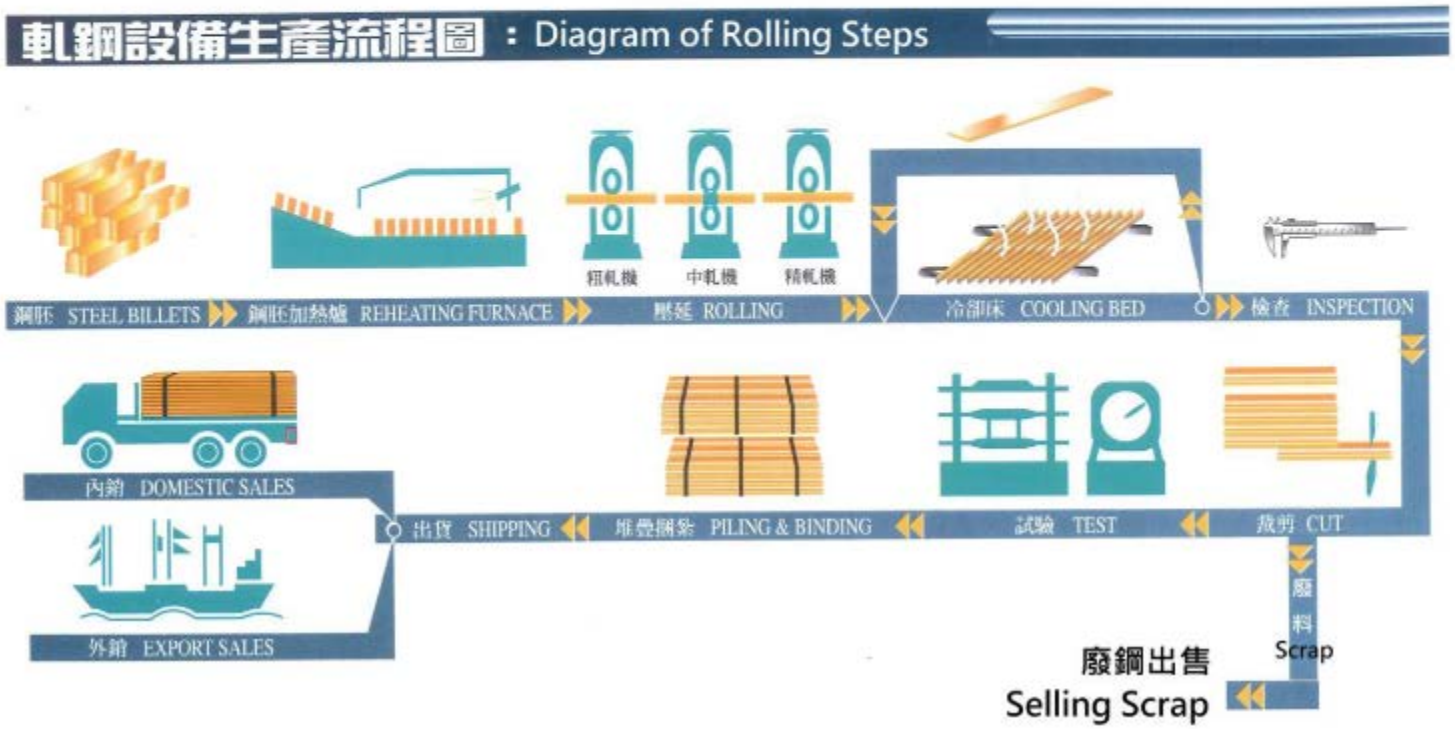
G-7 Major raw material costs

1. What are the major raw materials used in the manufacture of the goods?

Response:
The major raw materials used is Steel Billet.
And there are no other materials which TS Steel used.

志成鋼鐵股份有限公司
T S STEEL CO., LTD

Diagram of Rolling Steps



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TS Steel Structure: Further processing/Fabrication

- **EQR at p10: "T S Steel Structure is the only and fully owned subsidiary of T S Steel which mainly provides the welding service to the domestic market."**

QUESTIONS:

- **Clarify related party transactions between TS Steel and TS Steel Structure**
- **Clarify location of TS Steel Structure facilities**
- **Clarify allocation of costs between manufacturing and processing**

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TS Steel: Warehousing

- TS Steel's brochure includes the further processing steps (TS Steel Structure)
- EQR at p32 provides extensive warehousing/inventory calculations (basis for adjustment?)
- **Q: Does TS Steel's warehouse store as-rolled products only "the Goods" only or also further processed goods? If so, total inventory costs not applicable to "the Goods" only.**

Response:

(a) TS Steel has warehouse. The max volume capacity of warehouse is [ ]MT.

(b) The monthly amount of inventory maintained during the period is about [ ]MT.

(c) The average period of time that inventory is maintained for 2020 and the Period:

Inventory turnover rate = COGS / average inventory

Days of sales inventory = [ ] days / Inventory turnover rate

For 2020:

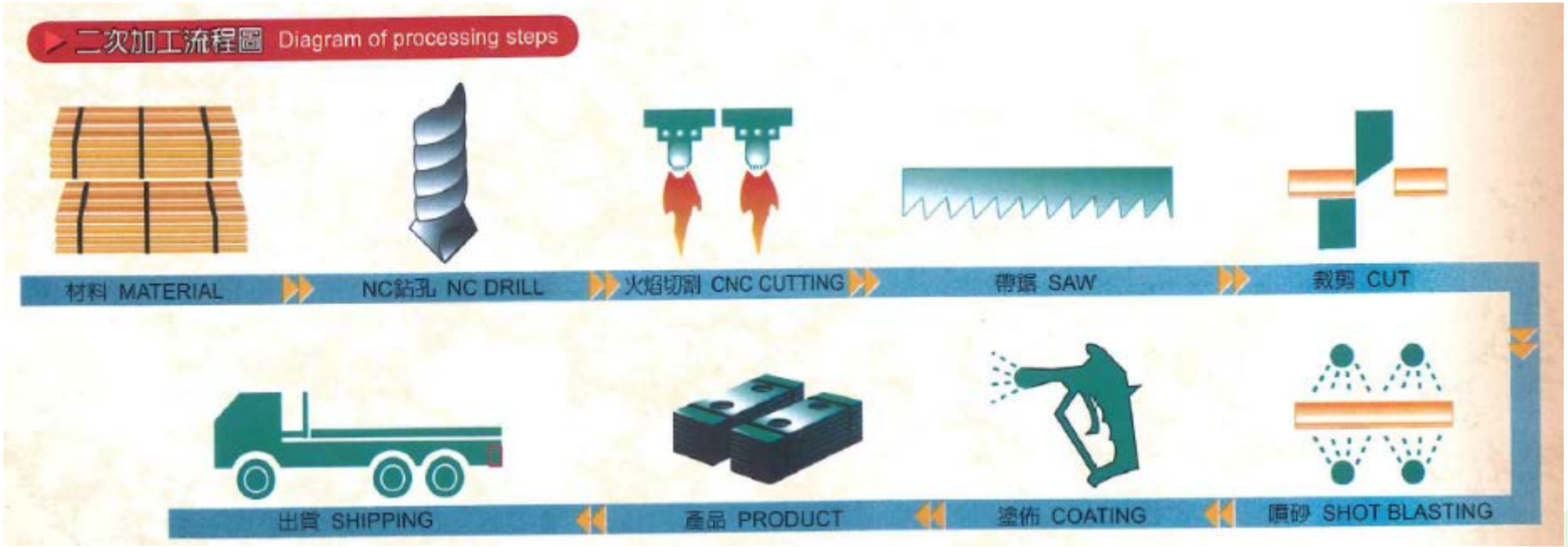
Inventory Turnover Rate = [ ] / ([ ]+ [ ])/ [ ] = [ ]times

Days of sales inventory = [ ] / [ ]= [ ]days

For the Period:

Inventory Turnover Rate = [ ]/ ([ ]+ [ ])/ [ ] = [ ]times

Days of sales inventory = [ ] / [ ]= [ ]days



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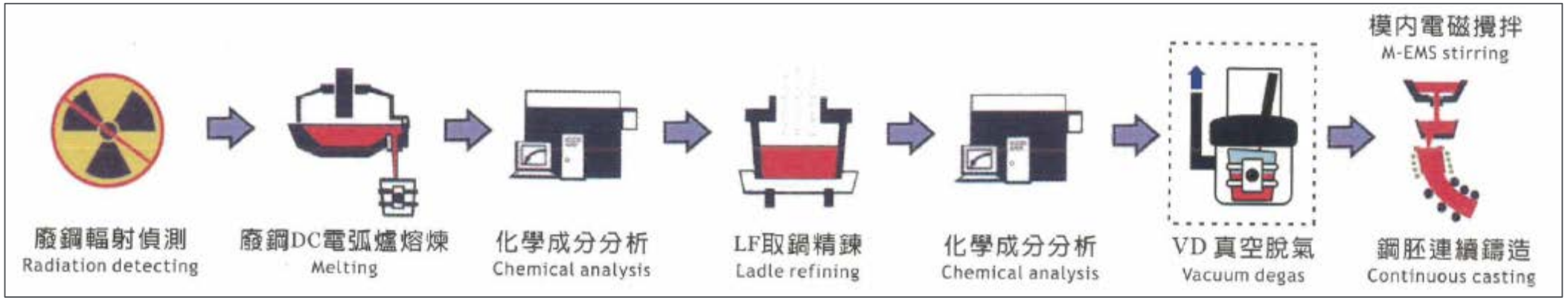
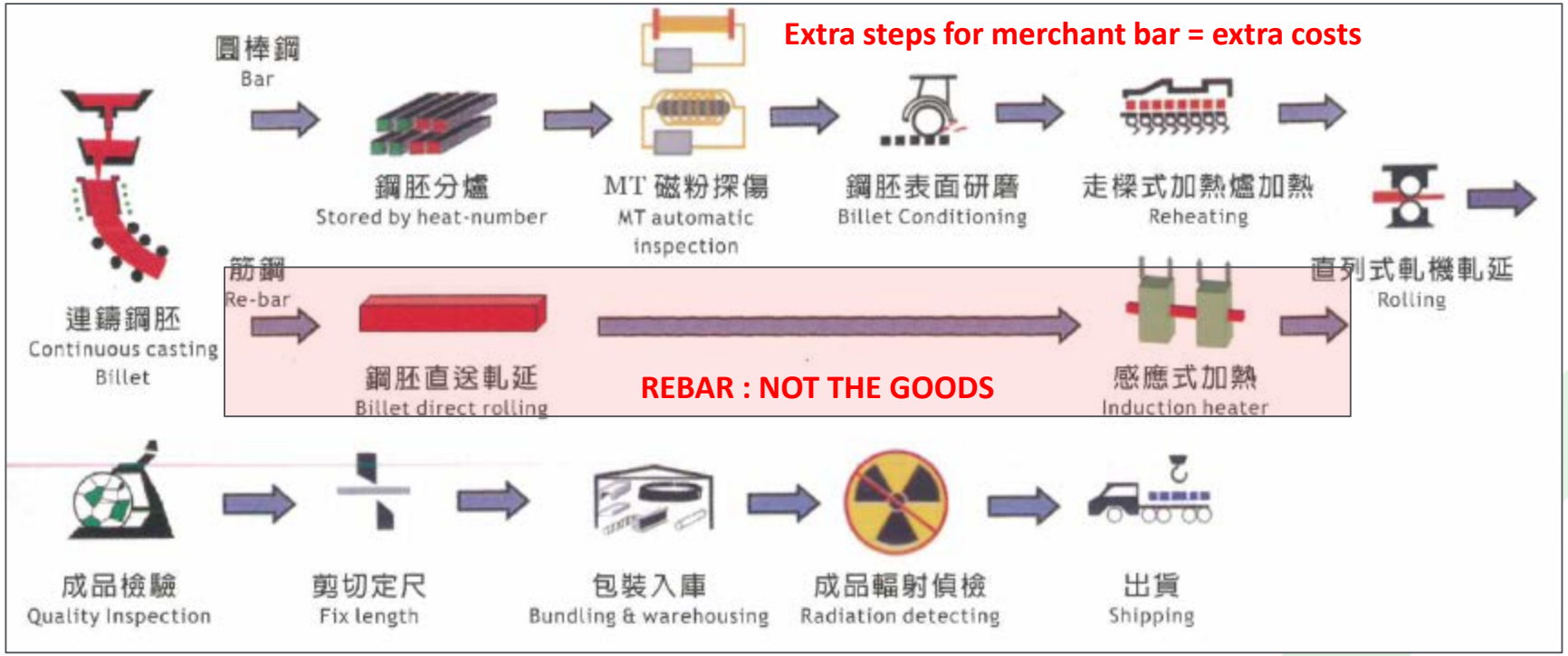
Feng Hsin Merchant Bar Production

Electric Arc Furnace Steelmaking





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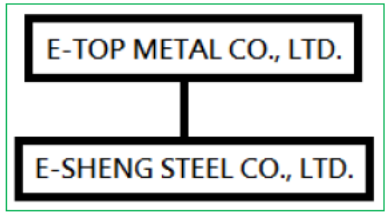
E-Sheng (ESS): Merchant Bar Production

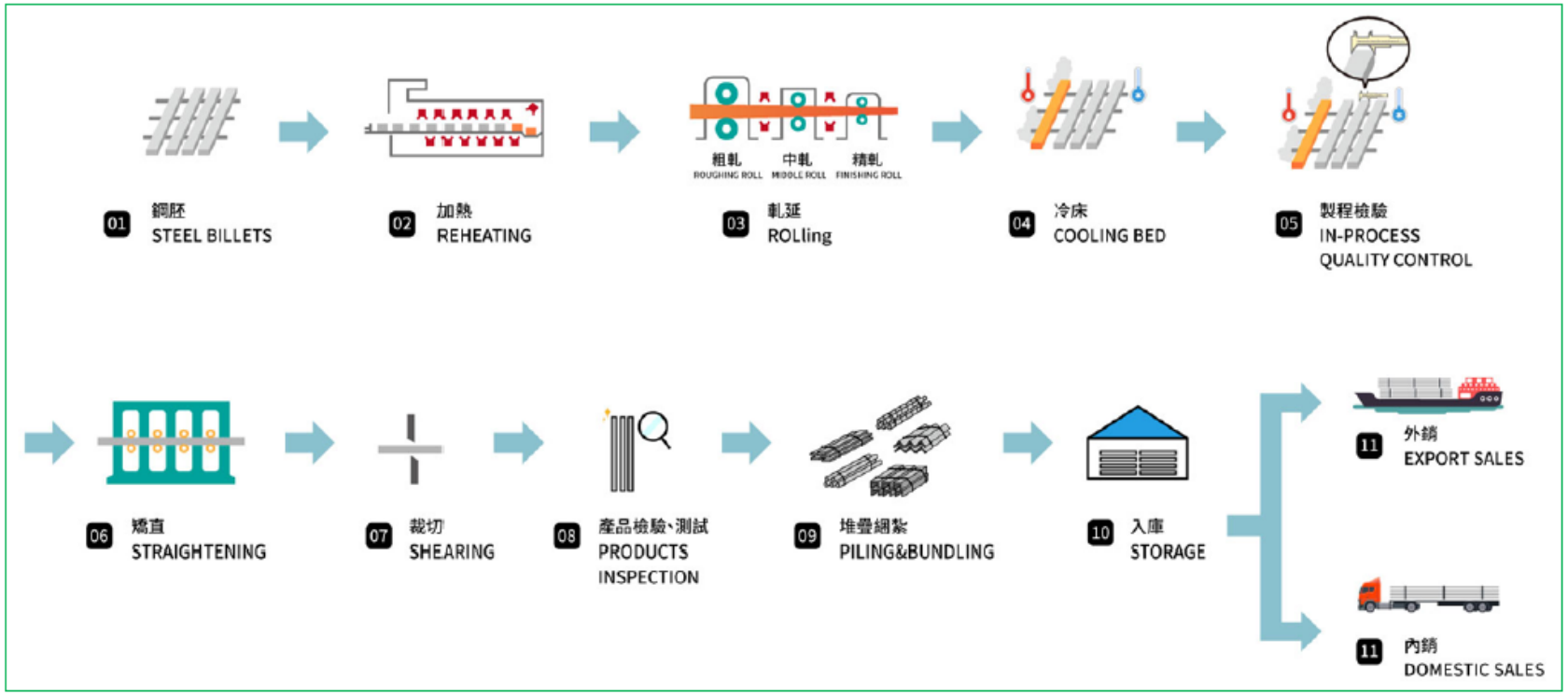
EQR Claims:

- No steelmaking
- Billet supplied by owner company E-TOP Metal Co. Ltd
- IS THIS CORRECT? See next slide.

(a) A diagram showing the complete ownership structure; and



(b) A list of all related companies and its functions
E-TOP METAL CO., LTD., supplying steel billet



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E-Sheng (ESS): Merchant Bar Production

ESS website:
http://www.essteel.com.tw/info.html

- "Our factory owns one electric arc furnace and 2 rolling mills, deformed bars and sections, which all located in the south of Taiwan."
- "All billets come from the electric arc furnace of the E-Sheng Steel Co. The annual capacity is around 350,000MT and fully supplies the mills for all steel product lines."
- Tainan facility lists products:
  - Billet, angle bar, channel bar, flat bar
- Yongkang facility lists products:
  - Deformed bar, round bar NOT THE GOODS

EQR at p11:

7. What is the overall nature of your company's business? Include details of the products that your company manufactures and sells and the market your company sells into.
Steel Billet, Section Steel, Wire Rod. Wire rod not listed as a product on their website

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E-Sheng (ESS): Merchant Bar Production

http://www.gkr.com.tw/en/info.html

- E-Sheng Steel is part of the Taiwan Steel Group of companies

https://en.tmpco.com.tw/uploadfiles/275/%E9%9B%86%E5%9C%98%E7%B6%B2%E7%AB%99/7.pdf

- E-Sheng Steel manufacturing operations includes EAF steelmaking to produce billets that are rolled into rebar and merchant bars/sections

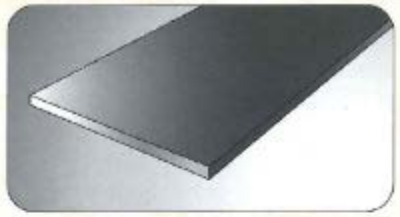
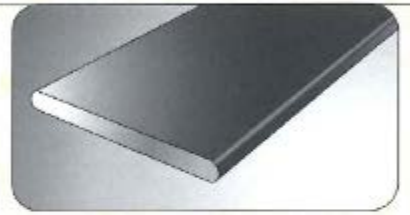
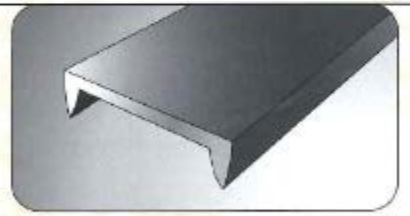
Company Name	Position in Industrial Chain	Major Products
E-Top Metal Co., Ltd.	Upstream - Electric furnace steelmaking	Steel billets, reinforcing steel bars
E-Sheng Steel Co., Ltd.	Upstream - Electric furnace steelmaking	Steel billet, reinforcing steel bars, section steel
TMP Steel Corporation	Downstream	Molding and processing of reinforcing steel bars
Quintain Steel Co., Ltd. (Strategic alliance)	Midstream	Wires
Chun Yu Works & Co., Ltd.	Downstream	Screws
OFCO Industrial Corp.	Downstream	Screws

THE EXPORTERS

PRODUCTS / Model Control Codes

TS Steel: Products/Shapes

The Goods (*certain sizes)

產品名稱 Shapes and types of steel bars	產品 Products	規格 Size
Flat Bars 窄幅鋼板		Width:25-300mm Thickness:4.5-38mm
Flat Bars with Round Edges 窄幅鋼板(圓邊)		Width:25-125mm Thickness:5-24mm
Channel Bars 槽鐵		Width:3".4".5".6"
Angle Bars 角鋼		Width: 25-150mm Thickness: 3-15mm

Feng Hsin: Products/Shapes

The Goods (certain sizes)

Angles (Equal and Unequal)

Flat Bar

Channels

E-Sheng: Products/Shapes

Source:
http://www.essteel.com.tw/index.html

The Goods (certain sizes)

Angles
(equal/unequal?)

Flat Bar

Channels

TS Steel: Export and Domestic MCCs

EQR at p17:

During the investigation period, TS Steel exported Hot rolled steel Flat Bar, Equal Angle Bar and Unequal Angle Bar to Australia.
*The Flat Bar sizes start from width 40mm to **300mm**, and the Equal Angle Bar only sales [ ]MT, and some Unequal Angle Bar with the specification of 125 x 75 x 10 and 150 x 90 x 8.* [NOTE: The Goods includes flat bar < 165mm]

T S Steel have only three MCCs exported to Australia, P-E-250, P-F-300, and P-U-300.

MCCs	Volume (KG)	Net Sales Value (NTD)
P-E-250	[ ]	[ ]
P-F-300	[ ]	[ ]
P-U-300	[ ]	[ ]
Total	[ ]	[ ]

The MCCs sold in the domestic market

MCCs	
P-E-250	
P-F-300	
P-U-250	
Total	

During the investigation period, TS Steel sold Hot rolled steel Flat Bar, Non-slip Flat Bar, Equal Angel Bar, Unequal Angle Bar and Tapered Channel Bar in domestic market.
The Flat Bar sizes start from width 25mm to 161mm, and the Equal Angle Bar combined leg length start from 76mm to 200mm. For the combined leg length of unequal Angle Bar is started from 175mm to 200mm, the Tapered Channel Bar height is start from 75mm to 150mm.

MCCs for Domestic Market appear to be incomplete based on TS Steel's statement above:
Q: Have TS Steel only included sales of Domestic MCC's that they deem best align with the export MCCs?
Q: Why have tapered channel bar (the Goods) sales not been included in the domestic sales MCCs?
Q: Why have domestic sales of Grade 250 flats not been included in domestic MCCs? (included in their grade list)
Q: Why have no domestic sales of Grade 350 been included in domestic MCCs? (included in their grade list and brochure) Are these grades only produced for export?

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Feng Hsin: Export and Domestic MCCs

FH-Exhibit C-1.2

Disclosure needed as to which steel grades Feng Hsin have included in MCC Grade subcategories 250, 300 and 350.
Disclosure needed as to further 'size' categories nominated.

	MCCs in Domestic Market				Export MCCs			
	Quality [3.1]	Shape [3.2]	Grade [3.3]	MCC Code [3.4]	Quality [3.1]	Shape [3.2]	Grade [3.3]	MCC Code [3.4]
Equal Angles	P	E	250	P-E-250				
	P	E	300	P-E-300	P	E	300	P-E-300
					P	E	300	P-E-300
	P	E	350	P-E-350	P	E	350	P-E-350
Unequal Angles	P	U	250	P-U-250				
					P	U	300	P-U-300
Flat Bar	P	F	250	P-F-250	P	F	250	P-F-250
	P	F	300	P-F-300	P	F	300	P-F-300
					P	F	300	P-F-300
	P	F	350	P-F-350	P	F	350	P-F-350
Tapered Flange Channels	P	T	250	P-T-250				
					P	T	300	P-T-300
Parallel Flange Channels					P	P	300	P-P-300

What is the difference between these 2 export MCCs?

What is the difference between these 2 export MCCs?

No Domestic sales of Grade 300 Channels?

EPR584/007 Feng Hsin Submission:

Shape sub-categories

A review of Feng Hsin's extras price list (**Confidential Exhibit A**) reveals that within some of the identified shapes, sizes & dimensions have a demonstrated effect on price. Size extras apply to [redacted], [redacted] and [redacted]. Feng Hsin proposes that a further 'size' category be included in the MCC structure to allow for the proper comparison of similar sizes of [redacted], [redacted] and [redacted], consistent with the size groupings identified in the extras price list.

As per InfraBuild's submission (EPR584/009), clarity is needed as to the nature of the size category modifications proposed by Feng Hsin to MCCs

Refer InfraBuild submission EPR584/009

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E-Sheng (ESS) : Export and Domestic MCCs

No disclosure of MCCs provided in EQR – a non-compliant questionnaire response

Is “Exhibit 07” meant to be a non-confidential attachment on the EPR?

C-1 Models exported to Australia

1. Fully describe all of the goods your company exported to Australia during the period. Include specification details and any technical and illustrative material that may be helpful in identifying, or classifying, the goods exported to Australia.
   [redacted] [Confidential]
2. Provide a list of MCCs of the goods exported to Australia. This must cover all MCCs listed in the Australian sales listing in B-2.
   - This list must be disclosed in the public record version of the response.

   [redacted] [Confidential]

C-2 Models sold in the domestic market

1. Fully describe all like goods your company sold on the domestic market during the period. Include specification details and any technical and illustrative material that may be helpful in identifying, or classifying, the like goods sold on the domestic market.
   See Exhibit 07
2. Provide a list of MCCs of like goods sold on the domestic market. This must cover all MCCs listed in the domestic sales listing in D-2.
   - This list must be disclosed in the public record version of the response.

   See Exhibit 07

Feng Hsin: Price Lists

EPR584/007 Feng Hsin Submission:

"Where the export grade is not sold domestically or not in sufficient volumes, the Commission should refer to the extras price list for determining the corresponding grades that are most comparable to the exported grade. This would avoid the need for making necessary adjustments to domestic prices for characteristics which are demonstrated to affect price."

EPR584/009 InfraBuild Submission:

The list price, whether for rebar or merchant bar or another product, is merely a guide for customers as to where prices are trending, prices to individual customers may vary considerably depending on the circumstances of the sale, discounts offered and range of products purchased.

It is important that actual realised product sales prices are considered as the basis for adjustments rather than list prices and price extras lists that are likely used merely as a guide in pricing negotiations.

Taiwan Feng Hsin's rebar, scrap prices climb for 2nd week

Source: Mysteel Jul 05, 2021 18:30 See Full-size Table Here

ABSTRACT

Feng Hsin Steel, Taiwan's largest rebar producer, has decided to raise its rebar list price and its buying price of locally-sourced scrap for the second week over July 5-9 to encourage scrap deliveries, a company official confirmed on Monday.

With the latest adjustment,Feng Hsin'slist price for 13mm diarebarwill be TWD 23,200/tonne ($832/t)EXWfor salestill thisFriday,higher by another TWD 200/t on week after the prior week's TWD 300/t rise. However, its actual rebar sales price for this week will be TWD 400/t higher from last week, the official explained, as "we have cancelled the discount of TWD 200/t

Feng Hsin publishes price lists but actual realised sales prices will vary

Refer EPR584/009 for Feng Hsin export strategy to compete with China (likely applies to domestic sales too):

"So our strategy right now is to export small-volume and large-variety cargoes."

"For example, small volumes with a complex mix of steel products: different grades, different sizes and different packing in a single deal," he said.

This type of 'customised package' deal will likely have actual customised pricing that departs from the guidance price list.

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TS Steel: Price Lists

EQR at p19:

4. If sales are in accordance with price lists or price extras list, provide copies of these lists.

Response:

The question is not applicable. The company did not have a price lists or price extras list, price negotiations are based on monthly quotation and case by case.

No price lists for TS Steel

Actual realised price paid by customer is the only verifiable evidence of specification or other price differences warranting an adjustment.

E-Sheng: Price Lists

EQR at p13:

4. If sales are in accordance with price lists or price extras list, provide copies of these lists. [redacted] [Confidential]

Why is the answer to this question confidential?

EQR at p13:

Customers contact with ESS via company website, **ESS provide stock list and price offer**, Customer confirm orders, **ESS start preparing shipment after receiving customer's full payment for orders**. Once customers confirm when to deliver (usually within 30 days), ESS deliver goods to port and do exporting declaration. After goods are on board, ESS provide shipping documents to customer.

For export sales, ESS appears to provide a stock list and a price offer.
Full payment by customer required prior to "preparing shipment"

TS Steel: Grades

TS Code Reconcile to ADC MCC

Item	Category	Sub-category	Identifier	TS code
1	Quality	Prime	P	A/AA/AB/AL/AR/B/BS/BSL/C/D/G/L/LB/U/UB
		Non-Prime	N	AQ/AAQ/ABQ/AZ/BQ/BSLQ/BSQ/BZ/CQ/DQ/GQ/GZ/LQ/UQ/UBQ

All scrap sales?
Some sales of non-prime product?

Feng Hsin: Grades

- **Grades considered to be Grade 250, Grade 300 and Grade 350 not disclosed by Feng Hsin**
- **Correct classification into MCC subcategory Grade 250, Grade 300 and Grade 350 to be verified**

Standards Minimum Yield Strength		MCC Grades
SS400 SM400A A36 S235JR	235-245 min 235-245 min 250min 225-235 min	Grade 250 Min Yield Strength < 275MPa
S275JR SS490 G300 SM490A SN490B	265-275 min 275-285 min 300-320 min 315-325 min 325-445 min	Grade 300 =>275, <330 Mpa
SS540 A572GR50 A709GR50 A572GR65 S355JR	390-400 min 345 min 345 min 450 min 345 - 355 min	Grade 350 Min Yield Strength 330MPa and greater

InfraBuild's view of how Feng Hsin's Grades as per brochure should be categorised across MCC Grades

Grades per MCC Grade category based on Standards' minimum yield strengths as per Feng Hsin's Product Brochure

規格 (Spec.)	材質記號 (Symbol)	降伏強度(Y.S) N/mm² (ksi)	
		t≦16	16＜t≦40
CNS 2473 JIS G3101	SS400	245min	235min
	SS490	285min	275min
	SS540	400min	390min
CNS 2947 JIS G3106	SM400A	245min	235min
	SM490A	325min	315min
CNS 13812 JIS G3136	SN490B	325~445 (降伏比80%以下)	
ASTM A36	A36	250 (36)min	
ASTM A572	Grade50 type 2	345 (50)min	
ASTM A709			
ASTM A572	Grade65 type 2	450 (65)min	
EN 10025-2	S235JR, S235J0, S235J2	235min	225min
	S275JR, S275J0, S275J2	275min	265min
	S355JR, S355J0, S355J2, S355K2	355min	345min
AS 3679.1	GR300	t＜11	11≦t≦17
		320min	300min

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TS Steel: Grades

Extract from TS Steel Exhibit C-3

2	Grade	SS400	A
		GRA	
		A36	AA
		G300	AB
		S275JR	
		50A	B
		A572GR50	
		SM490A	
		AH36	
		G350	
		A709GR50	
		SN490B	BS
		SS400	U
		A572GR50	UB
		SS400	L
		A572GR50	LB
		S45C 中碳	D
		SUP9 合金	C
		SS400	G

InfraBuild's view of TS Steel's MCC Grades based on min Yield Strength

A	SS400	235-245 min	Grade 250 Min Yield Strength < 275MPa
A	GRA	??	
AA	A36	250min	
AL	What is this grade?		
L	SS400	235-245 min	
U	SS400	235-245 min	
G	SS400	235-245 min	
AB	S275JR	265-275 min	Grade 300 =>275, <330 Mpa
AB	G300	300-320 min ☑	
AB	SM490A	315-325 min ☑	
AB	SN490B	325-445 min	
B	50A	345min	Grade 350 Min Yield Strength 330MPa and greater
B	A572GR50	345min ☒	
B	SM490A	315-325min	
B	AH36	355 min	
B	A709GR50	345 min ☒	
BS	SN490B	325-445 min	
UB	A572GR50	345 min	
LB	A572GR50	345 min	
D	S45C	345 min	
C	SUP9 (Spring)	1080 min	

Exhibit C-3 TS Steel's proposed alignment with Commission's MCCs:

3	Grade Minimum yield strength specified by the Standard the product is certified	Less than 275	250	A/AA/AL/L/U/G
		Equal to or greater than 275 or less than 330	300	AB
		Equal to or greater than 330	350	B/BS/UB/LB/D/C

☒ Grade SM490A (B) and Grade SN490B (BS) incorrectly categorised as Grade 350 – must be changed to Grade 300

規格 (Spec.)	材質記號 (Symbol)	降伏強度(Y.S) N/mm² (ksi)	
		t≦16	16＜t≦40
CNS 2473 JIS G3101	SS400	245min	235min
	SS490	285min	275min
	SS540	400min	390min
CNS 2947 JIS G3106	SM400A	245min	235min
	SM490A	325min	315min
CNS 13812 JIS G3136	SN490B	325~445 (降伏比80%以下)	
ASTM A36	A36	250 (36)min	
ASTM A572	Grade50 type 2	345 (50)min	
ASTM A709			
ASTM A572	Grade65 type 2	450 (65)min	
EN 10025-2	S235JR, S235J0, S235J2	235min	225min
	S275JR, S275J0, S275J2	275min	265min
	S355JR, S355J0, S355J2, S355K2	355min	345min
AS 3679.1	GR300	t＜11	11≦t≦17
		320min	300min

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PUBLIC RECORD

TS Steel: Grades

Extract from TS Steel Exhibit 6 – Product Catalogue

結構用鋼 ASTM STANDARD for Structural steel

	種類之符號 Symbol	厚度 Thickness (mm)	化學成份 Chemical compositions % C	Si	Mn	P	S	機械性能 Mechanical property 拉伸試驗 Tension test 降伏強度 Yield strength Ksi(Mpa)	抗拉強度 Tensile strength Ksi(Mpa)	伸長率 Elongation 試片 in(mm)	%
一般結構用鋼 A36 Carbon Structural steel ASTM A36-94	–	至 To 20	0.25 以下 Under	0.40 以下 Under	–	0.04 以下 Under	0.05 以下 Under	36 (250) 以上 Above	58-80 (400-550)	GL=8 (200) GL=2 (50)	20 以上 Above
	–	超過 20 至 To 40	0.25 以下 Under	0.40 以下 Under	0.60 | 1.20	0.04 以下 Under	0.05 以下 Under				23 以上 Above
	–	超過 40 至 To 65	0.26 以下 Under	0.15 | 0.40	0.80 | 1.20	0.04 以下 Under	0.05 以下 Under				
	–	超過 65 至 To 100	0.27 以下 Under	0.15 | 0.40	0.85 | 1.20	0.04 以下 Under	0.05 以下 Under				
(同等品) 高張力低合金結構用鋼 A572 High-strength Low-Alloy Structural steel ASTM A572-94C	Grade 42	40 以下 Under	0.21 以下 Under	0.40 以下 Under	1.35 以下 Under	0.04 以下 Under	0.05 以下 Under	42 (290) 以上 Above	60 (415) 以上 Above	GL=8 (200) GL=2 (50)	20 以上 Above
		超過 Over 40		0.15-0.40							24 以上 Above
	Grade 50	40 以下 Under	0.23 以下 Under	0.40 以下 Under	1.35 以下 Under	0.04 以下 Under	0.05 以下 Under	50 (345) 以上 Above	65 (450) 以上 Above	GL=8 (200) GL=2 (50)	18 以上 Above
		超過 Over 40		0.15-0.40							21 以上 Above
	Grade 60	40 以下 Under	0.26 以下 Under	0.40 以下 Under	1.35 以下 Under	0.04 以下 Under	0.05 以下 Under	60 (415) 以上 Above	75 (520) 以上 Above	GL=8 (200) GL=2 (50)	15 以上 Above
	Grade 65	13 以下 Under	0.26 以下 Under	0.40 以下 Under	1.35 以下 Under	0.04 以下 Under	0.05 以下 Under	65 (450) 以上 Above	80 (550) 以上 Above	GL=8 (200) GL=2 (50)	15 以上 Above
		超過 Over 13 至 To 32	0.23 以下 Under		1.65 以下 Under						17 以上 Above
鋼橋結構用鋼 Structural steel for Bridges ASTM A709-95a	Grade 36	20 以下 Under	0.25 以下 Under	0.40 以下 Under	–	0.04 以下 Under	0.05 以下 Under	36 (250) 以上 Above	58-80 (400-550)	GL=8 (200) GL=2 (50)	20 以上 Above
		超過 Over 20 至 To 40	0.25 以下 Under	0.40 以下 Under	0.80 | 1.20	0.04 以下 Under	0.05 以下 Under				23 以上 Above
		超過 Over 40 至 To 65	0.26 以下 Under	0.15 | 0.40	0.80 | 1.20	0.04 以下 Under	0.05 以下 Under				
	Grade 50	40 以下 Under	0.23 以下 Under	0.40 以下 Under	1.35 以下 Under	0.04 以下 Under	0.05 以下 Under	50 (345) 以上 Above	65 (450) 以上 Above	GL=8 (200) GL=2 (50)	18 以上 Above
		超過 Over 40		0.15-0.40							21 以上 Above

JIS G3101 一般結構用鋼 (1995) Rolled steels for general structure

種類之符號 Symbol	化學成份 Chemical compositions % C	Mn	P	S	機械性能 Mechanical property 拉伸試驗 Tension test 降伏強度 Yield strength N/mm² 厚度 Thickness mm 16 以下 Under	超過 16 至 To 40	超過 Over 40	抗拉強度 Tensile strength N/mm²	伸長率 Elongation 適用厚度 Thickness (mm)	試片 Test Piece	%	彎曲試驗 Bend test 彎曲角度 Bend Angle	內側半徑 Inside radius	試驗片 Test piece
SS 330	–	–	0.050 以下 Under	0.050 以下 Under	205 以上 Above	195 以上 Above	175 以上 Above	330 至 To 430	超過 5 至 To 16	1A號	21 以上 Above	180°	厚度之 0.5倍	3號 No.1
									超過 16 至 To 50	1A號	26 以上 Above			
									超過 Over 40	4號	28 以上 Above			
SS 400	–	–	0.050 以下 Under	0.050 以下 Under	245 以上 Above	235 以上 Above	215 以上 Above	400 至 To 510	超過 5 至 To 16	1A號	17 以上 Above		厚度之 1.5倍	
									超過 16 至 To 50	1A號	21 以上 Above			
									超過 Over 40	4號	23 以上 Above			
SS 490					285 以上 Above	275 以上 Above	255 以上 Above	490 至 To 610	超過 5 至 To 16	1A號	15 以上 Above		厚度之 2.0倍	
									超過 16 至 To 50	1A號	19 以上 Above			
									超過 Over 40	4號	21 以上 Above			
SS 540	0.30 以下 Under	1.60 以下 Under	0.040 以下 Under	0.040 以下 Under	400 以上 Above	390 以上 Above	–	540 以上 Above	超過 5 至 To 16	1A號	13 以上 Above		厚度之 2.0倍	
									超過 16 至 To 50	1A號	17 以上 Above			

JIS G3106 熔接結構用鋼 (1995) Rolled steels for welded structure

種類之符號 Symbol	厚度範圍 Thickness (mm)	化學成份 Chemical compositions % C	Si	Mn	P	S	機械性能 Mechanical property 拉伸試驗 Tension test 降伏強度 Yield strength N/mm² 厚度 Thickness mm 16 以下 Under	超過 16 至 To 40	超過 Over 40	抗拉強度 Tensile strength N/mm²	伸長率 Elongation 適用厚度 Thickness (mm)	試片 Test Piece	%	衝擊試驗 Impact test 試驗溫度 Temperature °C	吸收能量 Energy (J)	試驗片 Test piece
SM 400A	50 以下 Under	0.23 以下 Under	–	2.5×C 以上 Above	0.035 以下 Under	0.035 以下 Under	245 以上 Above	235 以上 Above	215 以上 Above	215 以上 Above	400 至 To 510	5 以下 Under	5號	23 以上 Above	–	–	4號 口行平板延伸試驗片 No.4 rolling direction
	超過 50 至 To 200	0.25 以下 Under										超過 Over 5 至 To 16	1A號	18 以上 Above			
SM 400B	50 以下 Under	0.20 以下 Under	0.35 以下 Under	0.60 | 1.40	0.035 以下 Under	0.035 以下 Under						超過 Over 16 至 To 50	1A號	22 以上 Above	0	27 以上 Above	
	超過 50 至 To 200	0.22 以下 Under										超過 Over 40	4號	24 以上 Above			
SM 400C	100 以下 Under	0.18 以下 Under	0.35 以下 Under	1.40 以下 Under											0	47 以上 Above	
SM 490A	50 以下 Under	0.20 以下 Under	0.55 以下 Under	1.60 以下 Under	0.035 以下 Under	0.035 以下 Under	325 以上 Above	315 以上 Above	295 以上 Above	295 以上 Above	490 至 To 610	5 以下 Under	5號	27 以上 Above			
	超過 50 至 To 200	0.22 以下 Under										超過 Over 5 至 To 16	1A號	17 以上 Above			
SM 490B	50 以下 Under	0.18 以下 Under	0.55 以下 Under	1.60 以下 Under								超過 Over 16 至 To 50	1A號	21 以上 Above	0	27 以上 Above	
	超過 50 至 To 200	0.20 以下 Under										超過 Over 40	4號	20 以上 Above			
SM 490C	100 以下 Under	0.18 以下 Under	0.55 以下 Under	1.60 以下 Under											0	47 以上 Above	
SM 490YA	100 以下 Under	0.20 以下 Under	0.55 以下 Under	1.60 以下 Under	0.035 以下 Under	0.035 以下 Under	365 以上 Above	355 以上 Above	335 以上 Above	325 以上 Above	490 至 To 610	5 以下 Under	5號	19 以上 Above	–	–	
												超過 Over 5 至 To 16	1A號	19 以上 Above			
SM 490YB												超過 Over 16 至 To 50	1A號	19 以上 Above	0	27 以上 Above	
												超過 Over 40	4號	19 以上 Above			
SM 520B	100 以下 Under	0.20 以下 Under	0.55 以下 Under	1.60 以下 Under	0.035 以下 Under	0.035 以下 Under	365 以上 Above	355 以上 Above	335 以上 Above	325 以上 Above	520 至 To 640	5 以下 Under	5號	19 以上 Above	0	27 以上 Above	
												超過 Over 5 至 To 16	1A號	19 以上 Above			
SM 520C												超過 Over 16 至 To 50	1A號	19 以上 Above	0	47 以上 Above	
												超過 Over 40	4號	19 以上 Above			
SM 570	100 以下 Under	0.18 以下 Under	0.55 以下 Under	1.60 以下 Under	0.035 以下 Under	0.035 以下 Under	460 以上 Above	450 以上 Above	430 以上 Above	420 以上 Above	570 至 To 720	16 以下 Under	5號	19 以上 Above	5	47 以上 Above	
												超過 Over 16 至 To 40	1A號	19 以上 Above			
												超過 Over 40	4號	19 以上 Above			

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Feng Hsin: Grades

Adjustment Claims:

EPR 584/007 submission by Feng Hsin:

Where the export grade is not sold domestically or not in sufficient volumes, the Commission should refer to the extras price list for determining the corresponding grades that are most comparable to the exported grade. This would avoid the need for making necessary adjustments to domestic prices for characteristics which are demonstrated to affect price.

Alternatively, if the Commission opts to leave the proposed MCC structure unchanged, Feng Hsin contends that the extras price list clearly demonstrates that prices are impacted by the various grades purchased by customers. To ensure proper comparison, domestic prices would require adjustment by reference to the domestic extras price list, for grade differences when compared to the exported goods.

分類（Division）	規格（Spec.）	材質記號（Symbol）
一般結構用(General Structure)	CNS 2473	SS400, SS490, SS540
	JIS G3101	
	ASTM A36	A36
	AS 3679.1	GR300 ✗
焊接結構用(Welded Structure)	CNS 2947	SM400A,SM490A
	JIS G3106	
	CNS 13812	SN490B
	JIS G3136	
	ASTM A572	Grade 50 type 2, Grade 65 type 2
	ASTM A709	Grade 50 type 2
結構用(Structure)	EN 10025-2	S235JR, S235J0, S235J2
		S275JR, S275J0, S275J2
		S355JR, S355J0, S355J2, S355K2

- **Feng Hsin Product Brochure groups AS/NZS Grade 300 with Grade SS400 under "General Structure" – this is incorrect.**
- **If Feng Hsin's price list follows the same convention, Feng Hsin will likely contend that based on the extras price list, Grade 300 (exported) is most alike to Grade SS400 (commonly sold domestically) – this is incorrect.**

Date of Sale

Dumping and Subsidy Manual (p66)

In establishing the date of sale, the Commission will normally use the date of invoice as it best reflects the material terms of sale. For the goods exported, the date of invoice also usually approximates the shipment date.

Where a claim is made that a date other than the date of invoice better reflects the date of sale, the Commission will examine the evidence provided.

Any claim for an adjustment would need to substantively address:

- *whether, why, and to what degree, the considerations in determining price differed between export and domestic sales;*
- *whether the materials cost differs at the time of subsequent invoicing of that export sale (compared to domestic sale invoices in the same invoice month of that export sale) having regard to factors such as the production schedules for domestic and export; and lead times for purchasing main input materials;*
- *whether contracts were entered into for the materials purchases, and materials inventory valuation.*

Particularly important for Merchant Bar – mill production schedules for a specific shape/section size for domestic and export production likely to be the same (eg. every 4 or 8 weeks) and include input materials purchased at approximately the same time and cost.
(Shape/section size changes are costly as they involve mill stoppages and scrap generated with each startup in getting the mill setup right. Mills will try to roll as many tonnes as possible of a shape/section size in each rolling cycle before changing setup.)

Dumping and Subsidy Manual (p63)

Using the contract date for export sale is most likely to have application in situations where the production process takes a long time—for example, manufacturing items of heavy capital equipment causing delivery to occur well after the sale has taken place.

The production of a commodity product, ie. Merchant bar, for either domestic or export sale is clearly not the type of scenario envisaged by the Manual where the use of the 'contract date' for export sale is considered appropriate – merchant bar is not an example of "heavy capital equipment".

TS Steel: Date of Sale

Export Sales

EQR at p14 :

(a) What date are you claiming as the date of sale?

Response:
The date of sales is the date of export declaration.

What does this mean?
At Bill of Lading issued?

(b) Why does this date best reflect the material terms of sale?

Response:
Because the terms of export sales should be declared. And the accounting department recorded the sales date is same with the export declaration date, and the same time, accounting department will also issue the domestic invoices.

Domestic Sales

EQR at p20 :

Response:
TS Steel report invoice date as the date of sales.

Feng Hsin: Date of Sale

Export Sales

EQR at p14 :

(a) What date are you claiming as the date of sale?

Feng Hsin would claim [redacted] *as the date of sale for Australia sales.*

(b) Why does this date best reflect the material terms of sale?

As stated in the answers to Q.1 in this section above and the sales process in Exhibit B-1.1-a, [redacted] *[Details of exportation]*

Why is this confidential?

Domestic Sales

EQR at p20 :

(a) What date are you claiming as the date of sale?

Feng Hsin would claim [redacted] *as the date of sale for Australia sales.*

(b) Why does this date best reflect the material terms of sale?

As stated in the answers to Q.1 in this section above and the sales process in Exhibit B-1.1-a, [redacted] *[material terms of sale]*

Copied from export sales?
Why confidential?

E-Sheng: Date of Sale

EQR at p13: NO ANSWER TO THE QUESTION

8. In establishing the date of sale, the Commission will normally use the date of invoice as it best reflects the material terms of sale. If you are making a claim that a different date should be taken as the date of sale:
    (a) What date are you claiming as the date of sale?
    (b) Why does this date best reflect the material terms of sale?

Thank you

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