



INVESTIGATION 223

**ALLEGED DUMPING OF HOT ROLLED STRUCTURAL STEEL
SECTIONS**

**EXPORTED FROM JAPAN, THE REPUBLIC OF KOREA,
TAIWAN AND THAILAND**

VISIT REPORT - EXPORTER

JFE BARS AND SHAPES CORPORATION

THIS REPORT AND THE VIEWS OR RECOMMENDATIONS CONTAINED THEREIN
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THE FINAL POSITION OF THE ANTI-DUMPING COMMISSION

MARCH 2014

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ABBREVIATIONS	
\$	US Dollars
¥	Japanese YEN (¥)
The Act	<i>Customs Act 1901</i>
ADN	Anti-Dumping Notice
Commission	Anti-Dumping Commission
CTMS	Cost to make & sell
EAF	Electric arc furnace
EPR	Electronic Public Record
GUC	Goods under consideration
HRS	Hot rolled structural steel
JFEBS	JFE Bars and Shapes Corporation
Korea	Republic of Korea
OneSteel	OneSteel Manufacturing Pty Ltd
PAD	Preliminary Affirmative Determination
P/L	Profit and loss statement
REQ	Response to exporter questionnaire
SEF	Statement of Essential Facts
TCO	Tariff Concession Order
the goods	the goods the subject of the application (also referred to as the goods under consideration or GUC)
the Parliamentary Secretary	the Parliamentary Secretary to the Minister for Industry

1 BACKGROUND AND PURPOSE

1.1 Background

On 26 August 2013, OneSteel Manufacturing Pty Ltd (OneSteel) lodged an application under the *Customs Act 1901* (the Act), requesting that the then-relevant Minister, the Minister for Home Affairs, publish a dumping duty notice in respect of hot rolled structural steel sections (HRS) exported from Japan, the Republic of Korea (Korea), Taiwan and Thailand.

OneSteel provided further information and data in support of its application, the last of which was received on 1 October 2013, restarting the 20 day period for consideration of the application.

The application alleges that the Australian industry has suffered material injury caused by HRS exported to Australia from Japan, Korea, Taiwan and Thailand at dumped prices. The application claims the industry has been injured through:

- price depression;
- price suppression;
- reduced profits and profitability;
- reduced domestic revenues;
- reduced production capacity utilisation;
- reduced employment; and
- reduced attractiveness for reinvestment.

Public notification of the initiation of the investigation was made on 24 October 2013 in *The Australian* newspaper and through Anti-Dumping Notice (ADN) No. 2013/75, notifying of the initiation of the investigation and key procedural matters.

1.2 Purpose of visit

The purpose of the visit was to verify information submitted in the response to the exporter questionnaire (REQ) submitted by JFE Bars and Shapes Corporation (JFEBS). JFEBS REQ consisted of a background to its activities, details of exports to Australia, details of exports to other countries, cost to make and sell information, details of domestic sales and information on adjustments to domestic selling prices. The REQ was supported by multiple attachments.

Information verified during the visit has been used to make preliminary assessments regarding:

- like goods;
- identifying the exporter and the importer;
- export prices;
- normal values; and
- dumping margin.

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1.3 Meeting details

Company	JFE Bars and Shapes Corporation
Dates of visit	11 March 2014 – 17 March 2014 (Himeji plant tour on 12 March 2014)

The following were present at various stages of the verification visit.

JFEBS	Naoto Sunagawa – Vice President Bars & Shapes Sale Shinji Suzuki – General Manager Export Dept Takuya Kageyama – Staff Deputy Manager Hironori Hayakawa – Manager, Accounting Sec Controller Dept Takashi Mashimo – Manager, Planning Sec Controller Dept Nobutaka Hashimoto – Expert Engineer Technology Dept. Arihide Kawamura – General Manager Products Design & Quality Control Dept. (Himeji Works) Kazue Itou – Manager Steel Making Plan – Manufacturing Dept (Himeji Works)
Consultant	Masatoyo Hirashima
Anti-Dumping Commission	Adam Yacono – Manager Investigations – Operations 3 Lydia Cooke – Manager Investigations – Operations 1

1.4 Investigation process and timeframes

We advised the company of the investigation process and timeframes as follows:

- The investigation period is 1 October 2012 to 30 September 2013.
- The injury analysis period is from 1 July 2009 for the purpose of analysing the condition of the Australian industry.
- A preliminary affirmative determination (PAD) is able to be made any time after 23 December 2013.

The Commissioner of the Anti-Dumping Commission (the Commission) will not make a PAD until (and if) it becomes satisfied that there appears to be, or that it appears there will be, sufficient grounds for the publication of a dumping duty notice.

This was distinguished from the 'reasonable grounds' threshold for initiation of the investigation.

- The Statement of Essential Facts (SEF) for the investigation is due to be placed on the electronic public record (EPR) by 12 May 2014, or such later date as the Parliamentary Secretary to the Minister for Industry (the Parliamentary Secretary) allows under s.269ZHI of the *Customs Act 1901* (the Act).

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The SEF will set out the material findings of fact on which the Commissioner intends to base its recommendations to the Parliamentary Secretary, and will invite interested parties to respond, within 20 days, to the issues raised therein.

- Following receipt and consideration of submissions made in response to the SEF, the Commissioner will provide its final report and recommendations to the Parliamentary Secretary.

This final report is due no later than 26 June 2014, unless an extension to the SEF is approved by the Parliamentary Secretary.

Following this discussion, the Commission released a PAD on 14 March 2014 requiring the taking of securities under s.42 of the Act in respect of interim dumping duty that may become payable in relation to HRS exported to Australia from Japan, Korea, Taiwan and Thailand. The determination was made on the basis that the Commissioner was satisfied that it is necessary to do so to prevent material injury to the Australian industry occurring while the investigation continues.

The securities apply to imports of HRS from Japan, Korea, Taiwan and Thailand entered for home consumption on or after 14 March 2014.

1.5 Visit report

We explained to the company that we would prepare a report of our visit (this report) and provide it to the company to review its factual accuracy, and to identify those parts of the report it considers to be confidential.

We explained that, in consultation with the company, we would prepare a non-confidential version of the report, and place this on the investigation's EPR.

2 COMPANY INFORMATION

2.1 General

JFEBS is a major Japanese steel products manufacturer, with a head office based in Minato-ku, Tokyo. JFEBS is a wholly owned subsidiary of JFE Steel Corporation, and JFE Steel Corporation is a wholly owned subsidiary of JFE Holdings Inc. In April 2012, three electric arc furnace steel makers within the JFE group – Daiwa Steel Corporation, Tohoku Steel Corporation and Toyohira Steel Corporation – were merged and absorbed into JFEBS.

JFEBS produces:

- Steel bars: general structural steel, steel for cold drawing, carbon steel for structural use, alloy steel for structural use, boron steel, spring steel, free-cutting steel, steel for special applications;
- Wire rods: general structural steel, steel for cold drawing, ordinary steel wire rod, special material piano wire, cold forging wire rod, carbon steel for structural use, alloy steel for structural use, boron steel, spring steel, free-cutting steel;
- Shapes & bars: equal angle steel, unequal angle steel, channels, H-shapes, I-shapes, T-shapes, flat bars, deformed steel flats, plane round bars;
- Deformed bars: deformed bars, anchor reinforcing bars (threaded rebar); and
- Other: Ordinary steel billets, special steel billets.

JFEBS produces these products using semi-finished steel intermediary products such as blooms and billets, which are cast from scrap steel and other raw materials using the electric arc furnace (EAF) steel making process.

JFEBS operates six manufacturing sites across Japan:

- Himeji Works: shapes and bars, steel bars;
- Toyohira Works: deformed bar;
- Sendai Works: wire rod & round bar;
- Kashima Works: deformed, angle bar (equal)*
- Tobu Works: deformed bar; and
- Mizushima Works: deformed bar.

*Note: these products are not the goods under consideration (GUC) because of their dimensions.

In its REQ, JFEBS provided an organisation chart, a listing of the principal shareholders of JFE holdings and JFEBS subsidiaries and other related companies. This forms **Confidential Attachment GEN 1**.

JFEBS subsidiaries are:

- BS Kouun Co., Ltd Truck, an entity responsible for transporting general cargo, work contracting and sales of petroleum products at Kashima works;
- Ohshima Migaki Co., Ltd, an entity which manufactures and sells steel bars for cold drawing and cold-forged carbon steel wire rods;

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- BS Service Co., Ltd Sales, an entity which sells equipment and materials, work contracting, worker dispatch, processing of reinforcing steel;
- Bars & Shapes Steel Kogyo Co., Ltd, an entity responsible for work contracting, mechanical construction at Sendai works;
- BS Steel Create Co., Ltd, an entity which inspects steel products, and work contracting at Sendai works; and
- Toyohira Unyukiko, an entity involved in work contracting, transportation of products, maintenance and inspection of subway switches.

JFEBS explained that the principal business activities these entities are involved in have no relationship to HRS produced by JFEBS.

2.2 Related parties

JFEBS provided a listing of related parties as part of its REQ (**Confidential Attachment GEN 2**). The listing provided the names of related companies that sold the goods and supplied scrap steel.

JFEBS explained that in both the domestic market and export market, sales are predominately made through traders, with a small volume of sales in the domestic market made directly to stockists. ■■■ per cent of domestic traders are related entities, and ■■■% of export traders to Australia are related entities.

2.3 Accounting structure and details of accounting system

JFEBS' financial year is 1 April to 30 March. The financial records of JFEBS are maintained at 5-11-3 Shinbashi, Minato-ku, Tokyo. JFEBS prepares its financial statements in Japanese YEN (¥) for local statutory purposes.

In its REQ, JFEBS provided the following accounting information:

- Chart of accounts (**Confidential attachment GEN 3**);
- Annual report for 2012 (**Confidential attachment GEN 4**); and
- Audited financial statements for 2011 and 2012 (**Confidential attachment GEN 5**).

We examined the audited statements and observed the unqualified auditors' opinion that the accounts fairly presented the financial position of JFEBS, and are kept in accordance with the relevant accounting principles for business enterprise generally accepted as fair and reasonable in Japan.

JFEBS uses standard costing, leveraging '■■■■' for its management accounting system. There are 6 profit and cost centres, which reflect each of the works outlined in section 2.1. ■■■■ is able to capture a high level of specificity for the production costs to a level of model (e.g. equal angle), size, dimension, and relevant standard. During the course of the verification, we were able to view company personnel undertake a number of searches in the system and were provided with reports extracted from ■■■■ to support the verification exercise. In order to reconcile accounting information to the company's audited statements; JFEBS uses a system called '■■■■'.

3 THE GOODS UNDER CONSIDERATION AND LIKE GOODS

3.1 The goods

3.1.1 Description

The goods the subject of the investigation (the goods) are:

Hot rolled structural steel sections in the following shapes and sizes, whether or not containing alloys:

- *universal beams (I sections), of a height greater than 130mm and less than 650mm;*
- *universal columns and universal bearing piles (H sections), of a height greater than 130mm and less than 650mm;*
- *channels (U sections and C sections) of a height greater than 130mm and less than 400mm; and*
- *equal and unequal angles (L sections), with a combined leg length of greater than 200mm.*

Sections and/or shapes in the dimensions described above, that have minimal processing, such as cutting, drilling or painting do not exclude the goods from coverage of the investigation.

Goods excluded from this investigation are:

- *hot rolled 'T' shaped sections, sheet pile sections and hot rolled merchant bar shaped sections, such as rounds, squares, flats, hexagons, sleepers and rails; and*
- *sections manufactured from welded plate (e.g. welded beams and welded columns).*

In support of the goods description, OneSteel stated in their application:

In Australia the goods are commonly known as universal beams, universal columns, universal bearing piles, parallel flange channels and both equal and unequal angles. Universal columns typically have their web lengths similar to their flange lengths, whereas universal beams typically have longer webs than flanges. In some other countries the term "H beams" applies to both universal beams and universal columns and the term "I beams" denotes tapered flange beams.

The common grades of steel that the goods subject to this application are sold to are grade 300 and grade 350. The minimal yield stress of the grade 300 refers to 300 Mega Pascals (MPa) and the minimal yield stress for grade 350 is 350 MPa.

The type of alloys that may be incorporated into the HRS steel sections include but is not limited to boron (typically with a boron amount above 0.0008 per cent or chromium above 0.3%). For clarity, the inclusion of alloy(s) is limited to the shapes and sizes identified above.

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The majority of the goods that are subject to this application are manufactured to comply with or exceed the requirements set out in AS/NZS 3679.1:2010 Structural steel Part 1: Hot-rolled bars and sections.

Imported goods are mostly quoted to AS/NZS 3679.1, but if not will generally be quoted to an international standard that stipulates nominal yield strength of 300 Mega Pascals (MPa).

3.1.2 Tariff classification

The goods are classified to the following tariff subheadings in Schedule 3 to the *Customs Tariff Act 1995*:

- 7216.31.00 statistical code 30 (*channels – U and C sections*);
- 7216.32.00 statistical code 31 (*universal beams – I sections*);
- 7216.33.00 statistical code 32 (*universal column and universal bearing piles – H sections*); and
- 7216.40.00 statistical code 33 (*equal and unequal angles – L sections*).

For the tariff subheadings outlined above, the general rate of duty is 5% for goods imported from Japan, and free for imports from Korea, Taiwan and Thailand.

The Commission has received advice from the Tariff Policy section of the Australian Customs and Border Protection Service, indicating tariff subheading 7216.50.00 may also be applicable to C sections, only in circumstances whereby these goods are differentiated by industry members and consumers from U sections.

Goods identified as hot rolled other alloy steel sections, as per the specified shapes and sizes described above, are classified to tariff subheading 7228.70.00 in Schedule 3 of the *Customs Tariff Act 1995*. The applicable duty rate for imports from Japan, Korea and Taiwan is 5%, and Thailand is free.

In Consideration Report 223, the Commission indicated that Tariff Concession Orders (TCO) 0513491 and 0513492 may apply to such goods that are classified to tariff subheading 7216.32.00 and 7228.70.00, respectively. After further examination of the description of the goods under consideration and relevant technical specifications, as well as the goods description contained in TCOs 0513491 and 0513492, the Commission has determined that neither applies to the goods under consideration. As of 5 January 2014, TCO 0513492 has been revoked due to two years of non-use.¹

¹ The revocation of TCOs, which have not been used for a period of two years, is part of the review of Schedule 4 of the *Customs Tariff Act 1995*, and was announced as part of the Government's better regulation and micro-economic reform agenda. See ACN 2010/18 – Review of Schedule 4 of the *Customs Tariff Act 1995* refers.

3.2 Product range and manufacturing facilities

3.2.1 Product range

JFEBS produces HRS at two manufacturing facilities in Japan, at the Himeji and Kashima works. In the domestic market, JFEBS produces HRS of various dimensions and lengths, of the following:

- Equal angles;
- Unequal angles;
- I beams;
- H beams; and
- Channels (noting all domestic sales relate to tapered flange channels).

At the Kashima works, equal angles are the only HRS product manufactured. All equal angles produced at the Kashima works are of size dimensions which do not fall within the goods subject to the investigation, as discussed in section 4.2 of this report. At the Himeji works, all of the above mentioned HRS products are produced, noting for various shapes (e.g. H-beams), a number of the products do not fall within the description of the goods subject to the investigation based on the dimensions.

In its REQ, JFEBS identified all sales of HRS made on the domestic market (within the size range of the goods under consideration) considered to be like goods to the HRS exported to Australia. The total volume of domestic sales of these goods was [REDACTED] kg. This HRS was manufactured to various standards, with [REDACTED] % of goods sold on the domestic market being SS400 grade, in compliance with Japanese standard G3101 (Rolled Steel for General Structure).

3.2.2 Goods exported to Australia

During the investigation period, JFEBS manufactured and exported HRS through traders to two Australian customers, [REDACTED] and [REDACTED]. In making these sales through traders, JFEBS was aware that the goods were destined for export to Australia.

During the investigation period, JFEBS exported a total of [REDACTED] kg of the goods to [REDACTED] and [REDACTED]. The goods were:

Shape	Description	Dimension	Length
AB	Equal angles	150x150x10 150x150x12	9m,12m 9m,12m
ABS	Unequal angles	150x100x10 150x90x10 150x90x9	9m,12m,13.5m 6m, 9m, 12m 9m, 12m
CB	Channels	150PFC 180PFC 200PFC	6m, 9m, 12m 9m, 10.5m, 12m, 13.5m, 15m 9m, 12m, 15m

Table 1: Exported goods to Australia

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Of HRS exported to Australia during the investigation period, ██████% was of non-alloy carbon steel and a Grade 300 (G300), sold as complying with Australian standard AS/NZ 3679.1:2010. We noted that ██████% of HRS exported to Australia during the investigative period was of a SS400 grade, sold as complying with JIS G3101 standard. During the above mentioned period there were nil exported goods of a grade 350 or of alloy steel.

3.2.3 Manufacturing facilities

As outlined in section 3.2.1, JFEBS produce HRS at two manufacturing facilities, Himeji and Kashima works. During the verification visit, we travelled to Himeji Works in the Hyogo Prefecture to conduct an inspection of the production facilities. At the visit, we were provided with a presentation and video outlining the facilities and production process (**Confidential attachment GEN 6**), followed by an extensive tour of the facility. Prior to the visit JFEBS advised that we would be unable to view the steel making process, as steel is produced overnight due to high electricity costs in Japan.

The Himeji plant covers a site area of ██████m² with ██████m² of building space, including its own private berth in the Senba River. On site, JFEBS employees ██████ staff and ██████ subcontractors. The facility runs an EAF (Eco-Arc) and has two rolling mill shops. The large section mill shop uses blooms to produce the goods as well as T-bars, whilst the small and medium section mill shop uses billets to produce equal angles (which are not the goods due to size dimensions), flat bars, I-bars and deformed flat bar.

3.2.4 Production process

In summary, JFEBS described the HRS production process at the Himeji works as follows:

- Scrap steel is delivered to the Himeji works via either inland road transport or barge. Scrap steel is sourced from both commercial and residential use e.g. old cars, domestic appliances and the like;
- Scrap metal is mixed with other key raw materials such as limestone and melted in the EAF;
- Liquid steel is transferred into the ladle furnace, whereby impurities are removed and chemical additives introduced;
- Liquid steel is fed into a continuous caster to form semi-finished products such as blooms or billets, and then cooled;
- For the production of the goods, blooms are transferred into the large shape mill for rolling, first through the reheating furnace, and then descaled through the break down mill;
- Goods are passed through a series of horizontal rollers to form the shape. Goods are cooled, straightened, cut and inspected; and
- Goods are then piled together, bundled and ready for transport.

3.2.5 Like goods

Prior to the verification visit, the Australia industry provided the Commission with an exporter briefing and an individual submission for JFEBS which was placed on the EPR. In the submission, the Australian industry outlined its view on the grade differences between the domestically produced HRS and that exported to Australia, and the requirement for a positive adjustment to normal value to reflect the differences, based on

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yield strength. The Australian industry indicated that in its view, the closest comparable grade in the Japanese market to G300 - AS/NZS 3679.1 is SM490.

In its REQ, JFEBS explained that the physical differences between the goods and like goods (those produced for the domestic market) relate to differences in chemical composition, mechanical tests and shape and dimensional tolerances.

Prior to the verification, we were provided with a detailed summary of the cost to make, as well as the cost to make and sell, associated with producing different grades for both domestic and exported HRS to Australia. In reviewing the cost to make between grades, we were able to verify a difference in production cost between the exported G300 and the domestically produced SS400.

At the verification visit, we asked JFEBS for their view on like goods for comparison purposes. JFEBS explained that the most appropriate grade for comparison purposes to the exported G300 is SS400. JFEBS further explained that SS400 accounts for the majority of its domestic sales, as detailed in section 3.2.1 and that higher grade steel such as SS490 or SM490 were for niche purposes. JFEBS explained that there was only a very small volume of like goods sold during the investigation period of grade SM490. We confirmed that the total sales of SM490 were █████% of the total sales of like goods over the investigation period.

JFEBS provided a brief presentation to the verification team from its expert engineer comparing and contrasting various domestic grades e.g. SS400, SS490 and SM490 using G300 as a benchmark in terms of the yield strength, tensile strength and chemical composition. JFEBS highlighted that when considering comparisons with a higher grade of steel such as either SS490 or SM 490, the tensile strength as an example significantly exceeds the minimum requirements of Grade 300. In its REQ, JFEBS provided the Commission with a copy of the specifications for all grades of like goods sold on the domestic market (**Non Confidential attachment 1**).

3.3 Like goods – preliminary assessment

We consider that the like goods cannot be classified identical in all respects to the goods, given the difference in standards as it relates to the distinct nature of AS/NZS 3679.1, and the differences in like goods manufactured based on differing chemical composition and mechanical properties. Based on information provided in JFEBS' REQ and that collected during the verification visit, the Commission considers HRS sold domestically by JFEBS has characteristics closely resembling those of the goods exported to Australia during the investigation period.

The Commission is therefore satisfied that HRS sold by JFEBS on the domestic market in Japan are like goods in accordance with subsection 269T. Whilst we consider HRS sold domestically to be like goods, section 6.8 of the report outlines the Commission's view on selection of a comparable subset of like goods that are suitable for comparison to the goods under consideration. Furthermore, Section 8.3 outlines the evidence and methodology used to adjust normal value for quantifiable differences identified in the physical characteristics between like goods and the goods, to enable a fair comparison.

4 SALES TO AUSTRALIA

4.1 General

Section 3.2.2 of this report details a summary of the shapes, dimensions, lengths and grades of goods manufactured and exported to Australia by JFEBS through its two traders, [REDACTED] and [REDACTED].

In its REQ, JFEBS provided a detailed *Australian sales* spreadsheet listing sales made through its two traders to its two Australian customers, [REDACTED] and [REDACTED]. The *Australian sales* spreadsheet included the following information:

- Customer name;
- Level of trade;
- Model;
- Grade;
- Shape;
- Dimension;
- Product code;
- Finish;
- Imperial or metric;
- Invoice number;
- Invoice date;
- Date of sale;
- Order number;
- Shipping terms;
- Payment terms;
- Quantity;
- Theoretical weight;
- Gross invoice value;
- Invoice currency;
- Invoice exchange rate;
- Net invoice value; and
- Inland transport.

We sought to verify the export sales data contained within the *Australian sales* spreadsheet during the verification visit. Further discussion of the verification process is contained in section 4.3.

Outlined below is a table which summarises the volume and value of exported goods per Australian customer, specified by the type of product and dimensions:

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Customer	Goods	Dimension	Weight (Tonne)	Net Invoice Value (\$ USD)
[REDACTED]	Equal angles	150x150x10 150x150x12	[REDACTED]	\$ [REDACTED]
	Unequal angles	150x100x10 150x90x10 150x90x9	[REDACTED]	\$ [REDACTED]
	Channels	150PFC 180PFC 200PFC	[REDACTED]	\$ [REDACTED]
TOTAL			[REDACTED]	\$ [REDACTED]
[REDACTED]	Equal angles	150x150x10 150x150x12	[REDACTED]	\$ [REDACTED]
	Unequal angles	150x100x10 150x90x10	[REDACTED]	\$ [REDACTED]
	Channels	150PFC 180PFC 200PFC	[REDACTED]	\$ [REDACTED]
TOTAL			[REDACTED]	\$ [REDACTED]
ALL			[REDACTED]	\$ [REDACTED]

Table 2: Export sales volume and value by customer

4.1.1 Export price setting

JFEBS explained that the price setting process for exported goods is impacted by a multitude of factors. JFEBS receives market intelligence via its traders, who provide a report on the market conditions in Australia, on a monthly basis. JFEBS consider this information along with the prevailing market conditions and market intelligence in countries such as Taiwan, Korea, Hong Kong, Singapore and Malaysia, as well as the outlook for the scrap price in the domestic market.

JFEBS explained that its selling policy is focussed on meeting domestic supply and demand, and that strengthening domestic demand will necessitate a shift away from an export orientated focus for the corresponding month.

[REDACTED]

[REDACTED]. [Export sales negotiation process]

4.1.2 Export sales process

A copy of the importing chain was provided by JFEBS (**Confidential attachment EXP 1**) outlining the relationship between JFEBS, its related and non-related traders and its two Australian customers. In summary, JFEBS explained the export sales process as follows:

- Once the price is accepted by JFEBS, the order enquiries are settled;
- JFEBS receives orders electronically from the trading companies;
- JFEBS will consider the timing of the order enquiry and the existing rolling schedule and cut-off dates;
- JFEBS will arrange the production of the goods at the Himeji works;
- Once the goods are ready for shipment, JFEBS organises delivery via barge or inland road transport to the port as per the trading companies order;
- JFEBS invoices the trading company, usually one day within shipment; and
- Trading companies arrange the shipping documentation, such as the invoice, bill of lading, packing list, mill certificate and the like in compliance with the Letter of Credit issued by the trading company's customers.

JFEBS explained that the price setting and sales process applies equally to both the related and non-related traders. JFEBS provided a copy of the two independent sales contracts entered into between JFEBS and [REDACTED] and [REDACTED]. (**Confidential attachment EXP 2**). The contracts were written in Japanese; however JFEBS interpreted the contracts, providing the Commission with an understanding of their nature, particularly surrounding pricing, ordering, delivery, ownership, payment and other legal obligations.

4.1.3 Currency

The commercial documents provided to the Commission evidence that JFEBS invoices its customers in USD.

4.1.4 Terms of trade

The shipping terms entered into between [REDACTED] and [REDACTED], and its Australian customers, [REDACTED] and [REDACTED], for the goods manufactured by JFEBS is Free Alongside Ship (FAS).

4.1.5 Payment terms

All export sales made to traders are [REDACTED].

4.1.6 Discounts, rebates and allowance

JFEBS explained that no discounts or rebates are applied to export sales to Australia. We saw no evidence of any discounts or rebates for exported goods to Australia during the verification.

4.1.7 Date of sale

In the *Australian sales* spreadsheet, JFEBS listed two dates related to selling: a date of sale, which outlines the date in which order data is electronically transmitted from its customers to JFEBS; and the invoice date, which in effect is the date of shipment. As per its policy, the Commission has used the invoice date as the date of sale.

4.1.8 Forward orders

In its REQ, JFEBS outlined the volume and value of forward orders on a per customer basis, coupled with the expected shipment dates over a [REDACTED] month period.

4.2 Verification of sales to audited financial statements – export and domestic

We sought to verify the completeness and relevance of the export and domestic sales revenues and volumes up to the audited financial statements. For the purposes of this report, we conducted the ‘upwards’ verification of export and domestic sales jointly, this forms the basis of the discussion within this section.

As part of its REQ, JFEBS completed the *Sales Summary/Turnover* spreadsheet reflecting the total turnover of all products, the turnover of the sector including the GUC, and turnover of the GUC for both the 2012 financial year and the investigation period.

Prior to the verification, we were able to reconcile the investigation period values and volume data for the *Domestic sales* and *Australian sales* listings directly to the *Sales Summary/Turnover* spreadsheet at the goods and like goods level. We were able to reconcile the aggregate third country volume data provided, however were unable to reconcile the third country revenue values due to the differences in reporting currency (noting this was completed at the verification visit).

At the verification visit, we asked JFEBS to demonstrate, by reference to management reports and audited financial statements, that the turnover spreadsheet and the domestic sales listing were complete and accurate.

We were provided with a management report generated from [REDACTED], which outlined the management accounts for the Himeji, Toyohira, Sendai, Kashima, Tobu and Mizushima works for the 2012 financial year, coupled with a consolidated summary for JFEBS (**Confidential Attachment EXP 3**) and copies of the audited financial statements for the 2011 and 2012 financial year (**Confidential Attachment GEN 5**). JFEBS explained how the total value for each of the respective works could be calculated in the management report, and we were able to reconcile the total turnover figure in the spreadsheet upwards through the management accounts and to the audited financial statements for 2012.

JFEBS provided reports from its integrated cost system, using an application called [REDACTED], relating to the sales of goods, the values and volumes for the domestic market, export market and exports to other countries for the turnover of the sector including the GUC, and turnover of the GUC for both the 2012 financial year and the investigation period (**Confidential Attachment EXP 4**).

During verification testing, we identified two issues which related to minor variances in the data provided. Firstly, we identified a discrepancy in the value of exports to Australia for the goods over the investigation period. It was identified that for a small number of shipments, JFEBS had incorrectly reported the transaction value between [REDACTED] and [REDACTED], as opposed to the transaction value between JFEBS and [REDACTED]. JFEBS resubmitted the *Australian sales* spreadsheet (**Confidential Attachment EXP 5**), and we verified that there was a downwards adjustment to the total value of export sales of [REDACTED]% to reflect the actual transaction value between JFEBS and

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██████████. We verified the individual export sales transaction variance as part of our verification of export sales to source documents.

In reconciling the value and volume of the turnover of the GUC for both export and domestic sales over the investigation period and 2012 financial year, in the *Sales Summary/Turnover* spreadsheet to the reports provided, we identified that there were very minor discrepancies in both the volume and value which we consider to be of an immaterial nature. JFEBS resubmitted the reports, in which we noted that the variance in part can be attributed to rounding.

As outlined earlier, we were able to reconcile both the value and volume reported in the *Sales Summary/Turnover* spreadsheet for the Turnover of the sector including the GUC, for the Himeji works to system reports, and up through the management accounts and to the audited statements. We requested JFEBS provide a report showing sales of all products, including values and volumes for the Kashima works for the 2012 financial year. We selected the Kashima works, as it produces HRS, but not the goods, as detailed in section 2.1, to ensure that the provided sales listing was complete and only included relevant sales.

We observed JFEBS undertake this process live in the system. Firstly, by accessing the integrated cost system and extracting data from ██████████. The report was run for the relevant period, using the unique works code 70. We reviewed the sales report to identify the type of goods, relevant shape and dimensions. We traced the total sales value and quantity to the management report sales value and quantity for the Kashima works. We reviewed the sales listing and identified that the sales listing does not include the goods, and confirmed our sales listing reflects all relevant sales. We selected two sample transactions from the report and asked to view them in the system; these related to sales of Steel Billets 150x150 and verified these details downwards.

In summary, we are satisfied that the domestic and export sales data now provided by JFEBS is complete and relevant.

4.3 Verification of export sales to source documents

To assess sales data for accuracy, verification to source documents was undertaken. In its REQ, JFEBS provided source documentation to verify two Australian sales listed in the submitted sales listing. Prior to the verification visit, we selected ten sales from the submitted *Australian sales* spreadsheet for verification, these are outlined below.

Customer	Order Number	Export Invoice number
██████████	██████████	██████████
██████████	██████████	██████████
██████████	██████████	██████████
██████████	██████████	██████████
██████████	██████████	██████████
██████████	██████████	██████████
██████████	██████████	██████████
██████████	██████████	██████████
██████████	██████████	██████████

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Customer	Order Number	Export Invoice number
[REDACTED]	[REDACTED]	[REDACTED]

Table 3: Export sales verified

The selected transactions covered various shapes, grades, dimensions, quarters, and different customers within the investigation period. Prior to the verification visit, we advised JFEBS that we required supporting documentation for each selected sale.

At the verification visit, JFEBS provided the following information:

- Invoices (JFEBS to traders) and (traders to Australian customers)
- Order Confirmation (JFEBS to trader)
- Purchase order
- Packing & weight listing (JFEBS to traders)
- Bill of lading
- Foreign inland freight charges
- Evidence of payment (remittance advice)
- Payment reconciliation documents

These documents form **Confidential Attachment EXP 6**.

JFEBS explained during the verification visit that it had difficulty in providing a full set of commercial documentation for all of the sample transactions. JFEBS explained that this was due to outsourcing arrangements for storage of hard copy invoices, [REDACTED]

[REDACTED] [internal system discussion]

We noted that the above evidence was not included in full for all selected sales transactions, however given the number of selected samples and available information; we consider the evidence provided to be reasonable for verification testing. Furthermore, we note that JFEBS provided additional documentation e.g. commercial invoices to the Commission, post the verification visit.

As discussed in section 4.2, we identified that the value of exported goods to Australia had been overstated in the *Australian sales* spreadsheet. We noted the resubmitted *Australian sales* spreadsheet (**Confidential Attachment EXP 5**) resulted in a minor downwards adjustment to the net invoice values only for some transactions, relating to one trader, equating to [REDACTED]% of the total value. From the selected transactions and source documents, we were able to verify the accuracy of the resubmitted information, as well as upwards verification as outlined in section 4.2.

4.3.1 Invoice, sales data and payment

We were able to match the sales information in the source documents to the data contained in the detailed *Australian sales* spreadsheet including sales volumes and values. This included theoretical weight, goods characteristic (dimensions, grade and shape), customer details, order number, and shipping and payment terms.

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We reviewed proof of payment, reconciliation documents and bank remittance advices (Confidential Attachment EXP 6). JFEBS explained how the individual shipments can be traced to the sales ledger and through to the accounting ledger. JFEBS explained how this then accounts for a percentage of the final remittance amount received, and how the balance of the additional ledgers, reconcile the total payment amount.

4.3.2 Inland freight

The *Australian sales* spreadsheet includes amounts for inland transport expenses. The majority of export sales to Australia are transported via barge from the Himeji harbour to the port in Kobe, with a small number of export sales transported via truck to the port. Inland transport expenses, include shipping charges (checking, handling and customs brokerage fees), as well as demurrage charges.

JFEBS provided a detailed report (**Confidential Attachment EXP 7**) outlining the actual costs of inland carry charges on a shipment-by-shipment basis which we were able to trace back to the Australian sales spreadsheet.

4.3.3 Conclusion

Having been able to reconcile JFEBS *Australian sales* listing down to source documents, we are satisfied that the spreadsheets are accurate.

4.4 The exporter

The Act does not define the exporter; however it is the Commission's policy as outlined in the Dumping and Subsidy Manual, to consider the circumstances (e.g. the role of the parties, their functions and responsibilities) surrounding the exportation of the goods in order to determine the exporter.

We consider JFEBS to be the exporter of HRS for the indirect export sales to Australia from Japan, on the basis that JFEBS:

- is the manufacturer of the goods; and
- sell the goods via intermediaries with actual knowledge that the goods are destined for export to Australia.

4.5 The importer

The importer is defined in s.269T(1) as the beneficial owner of the goods at the time of their arrival within the limits of the port or airport in Australia at which they have landed. Having reviewed information gathered at the JFEBS verification, we consider that for JFEBS' export sales of HRS, [REDACTED] and [REDACTED] should be considered the importers of the goods.

It is observed that these companies:

- are listed as the importer on the Customs declaration;
- are listed as the consignee on the Bill of Lading; and
- arrange for the post-FAS charges and shipment of the goods.

Consequently, we consider [REDACTED] and [REDACTED] to be the beneficial owner of the goods at the time of importation, and therefore the importer.

4.6 Arm's length

In respect of exports sales to Australia during the investigation period, we found no evidence that:

- there is any consideration payable for or in respect of the goods other than their price; or
- the price is influenced by a commercial or other relationship between the buyer, or an associate of the buyer, and the seller, or an associate of the seller; or
- the buyer, or an associate of the buyer, will directly or indirectly, be reimbursed, compensated or otherwise receive a benefit for, or in respect of, whole or any part of the price.

We therefore consider that all export sales to Australia during the investigation period were arm's length transactions as outlined in s269TAA.

4.7 Export price – preliminary assessment

We consider that:

- the goods have been exported to Australia otherwise than by the importer;
- the goods have been purchased by the importer from the exporter; and
- the purchases of the goods by the importer were arm's length transactions.

In relation to exports by JFEBS to Australian customers, we recommend that the export price be determined under subsection 269TAB(1)(a), the price paid by the importer less transport and other costs arising after exportation.

Details of the export price calculations are at **Confidential Appendix 1**.

5 COST TO MAKE & SELL

5.1 General

JFEBS cost to make and sell (CTMS) data provided in its REQ was assessed for relevance, accuracy and completeness. In its REQ, JFEBS stated that no corporate charges were levied by its parent entities, JFE Steel Corporation and JFE Holdings Inc. During the verification visit, it was confirmed that no payments were made by JFEBS to its parent companies in respect of corporate charges. However, we noted that JFEBS has borrowed capital from JFE Steel Corporation, which has repayment terms set at a commercial rate. We considered that the loan is at arms-length due to the repayment terms.

In its REQ, JFEBS provided CTMS data by quarter, dimension, shape and grade (**Confidential Attachment CTMS 1**). JFEBS explained that these costs reflected its normal costing methodology. It explained that it used standard costs which took into account dimension, shape and grade of production and the costs associated with these. For example, JFEBS explained that it sought to roll JIS product approximately █% underweight (still within the tolerance allowed) and this was reflected in the standard costing for these grades. Different shapes and sizes would also have different yield losses as the ends of runs were cut and this would be reflected in the standard costing. Variances to these standard costs were then applied on the basis of production quantity. It allocated costs on the basis of domestic production and export production in its ordinary course of business.

JFEBS explained the costs in the CTMS spreadsheet were extracted from █ on a quarterly basis, although its records were usually kept on a monthly basis. JFEBS provided us with a flow chart showing how the different modules of its accounting system █ fitted together (**Confidential Attachment GEN 7**).

We sought to verify the CTMS data that was submitted by JFEBS as part of its REQ to both audited financial statements and source documents, such as invoices, to ensure the accuracy, completeness and relevance of the data submitted.

Verification Upwards to Audited Financial Statements

As noted above, JFEBS informed us that it extracted the data in the CTMS spreadsheet from █ on a quarterly basis. It provided us with a copy of the system extract for the domestically sold like goods for the October-December 2012 quarter, as well as the individual reports for each of these months (**Confidential Attachment CTMS 2**).

We were able to reconcile the costs in the quarterly █ system report for October-December 2012 to the CTMS spreadsheet and to the sum of the individual monthly reports for October, November and December 2012. JFEBS then extracted from the system costs, for all domestic production at the Himeji works for the months of October, November and December 2012. We could reconcile the costs in the like goods reports to the reports which included all production (**Confidential Attachment CTMS 3**). We noted that the additional items produced were either other goods or hot rolled structural steel that fell outside the size parameters of this investigation.

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JFEBS also provided profit and loss statements (P/L) for October, November and December 2012 for the Himeji works. As noted previously, each of JFEBS' production plants were individual cost and profit centres. The production costs listed in these P/L statements reconciled to the total production costs for each month shown in the reports which listed total production. JFEBS then provided us with P/L statements for Himeji for the 2012-13 financial year as well as individual P/L's for each month of the financial year, which we could reconcile to the yearly report (**Confidential Attachment CTMS 4**).

We were then able to reconcile the values in the P/L statement for the 2012-13 financial year to management reports which showed the yearly totals for each plant as well as the total for JFEBS as a whole (**Confidential Attachment EXP 3**). We were also able to reconcile the amounts shown in the management reports to the total in the audited financial statement for that year (Confidential Attachment GEN 5).

We were therefore satisfied that the CTMS spreadsheet was complete and relevant.

5.2 Production volumes – actual and theoretical weights

JFEBS explained that production volumes were captured in its costing system and used to allocate costs to different models as shown in the production cost reports (Confidential Attachment CTMS 2 and 3). The company explained that it recorded theoretical weights in its production (and sales) volume and that it did not capture the actual weight of all production.

Weight and size spot checks were performed throughout the process. JFEBS advised that bundles of goods were periodically weighed at the end of the production process. JFEBS also explained that it measures the dimensions of the HRS it produced throughout a production run and this was the stage at which it sought to ensure that the product met the required specifications. Where tolerances allowed, JFEBS explained that it sought to under-roll product and measured the dimensions of the product and variances from the intended dimensions.

JFEBS provided the records of the dimension checks for a production run of 200PFC (exported to Australia) and 200CB (sold on the domestic market) (**Confidential Attachment CTMS 5**). From these reports, we observed some variations occurred over the course of the production run to the dimensions of the production and that, as stated by JFEBS, it did under-roll the JIS product for the domestic market.

5.3 Verification downwards to Source Documents

We then sought to verify the CTMS spreadsheet downwards to source documents to check for accuracy.

5.3.1 Scrap costs

We identified that raw materials, particularly scrap, constituted the main cost of HRS and we sought to verify scrap costs to source documents. As outlined above, we were able to reconcile the costs in the CTMS spreadsheet to the P/L statement for Himeji works.

JFEBS explained that raw material input costs were captured in a number of different elements in the P/L due to the use of standard costs and the necessity to then account for

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variances. Scrap costs were captured on the P/L under the cost of goods sold (as shown in the inventory ledger), the variance in production costs (as shown in the 'Production Cost Variances' ledger), and an additional cost variance was also recorded for movements in weighted moving average cost of scrap (as shown in the 'Raw Materials Variance Details' report). The values in these reports could be traced back to the raw material inventory report which showed the total volume and value of different types of raw material at the beginning and end of the month as well as that purchased and consumed in production. We requested further details showing the scrap purchases for the month of October 2012. JFEBS provided us with the reports and ledgers as described above. JFEBS also provided us with two summary tables which showed the scrap purchases for October 2012 by type and by supplier. We could reconcile these tables back to the raw materials purchase ledger and each other. From the table showing the scrap purchases from different companies we could identify scrap purchases from several related parties within the JFE group. JFEBS informed us that purchases from related parties were made at market prices. We examined the price from the related JFE companies and found that the price was comparable to those from unrelated parties.

JFEBS then provided us with the scrap delivery receipts for the purchases for October 2012. We could reconcile these receipts to the table showing the volume and value of supply from each supplier. JFEBS explained that it was difficult to demonstrate proof of payment as scrap suppliers usually supplied to a number of different plants within the JFEBS company in addition to the Himeji plant. Payment was made on a monthly basis for the complete supply across all plants. However, JFEBS identified a smaller supplier that only provided scrap to the Himeji plant. The company provided us with its advice to the Bank authorising the payment of this supplier and we could reconcile the payment amount to the previous documents provided for this supplier.

We were therefore satisfied that the scrap cost reflected in the CTMS spreadsheet were accurate. Documents relating to the downwards verification of scrap are at **Confidential Attachment CTMS 6**.

5.3.2 Electricity

We also sought to verify electricity costs. JFEBS explained that these were captured in the manufacturing overhead costs in the CTMS spreadsheet, which we traced to the P/L for Himeji works. JFEBS explained that overhead costs were recorded in the 'Production Cost Variances' ledger. This report listed the actual costs of production by cost item and factor line and identified the variance between standard and actual costs. We were provided with copies of this report for October, November and December 2012 and were able to reconcile them to the relevant P/Ls.

Within these reports we were able to identify the electricity costs incurred in production for each month. We asked for and were provided with the electricity invoices for each month and were able to reconcile them to the cost report. We were therefore satisfied that the electricity costs were accurate. Document relating to the verification of electricity costs are at **Confidential Attachment CTMS 7**.

5.3.3 Depreciation

We also sought to verify depreciation costs. JFEBS explained that standard depreciation costs were recorded in the 'Production Cost Variances' ledger – as was the electricity

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costs - under a line for depreciation. An additional amount for the variance in depreciation was recorded in the 'Additional Cost variances' report. We could reconcile both these reports for October, November and December 2012 to the CTMS spreadsheet provided in the exporter questionnaire response.

JFEBS provided then us with a depreciation report for its fixed assets for the second half of the 2012-13 financial year, which included depreciation amounts for buildings, machinery, vehicles, tools, land, software and intangibles. We were able to reconcile the total depreciation cost for the period to the sum of the amounts listed in the 'Production Cost Variances' ledger and the 'Additional Cost Variances' report for the period. We were also provided the monthly production cost reports (including the October 2012 report) which we could reconcile to the half yearly summary report.

We were therefore satisfied that depreciation costs were accurate. Document relating to the verification of depreciation are at **Confidential Attachment CTMS 8**.

5.4 Selling, General and Administrative expenses

We then sought to understand how selling, general and administrative (SG&A) expenses had been applied to the goods under consideration. JFEBS explained that these costs were drawn from the Himeji works P/L for the relevant month. As previously noted, we had reconciled the P/L to the CTMS spreadsheet and the audited financial statements.

JFEBS explained that in the SG&A costs in the CTMS spreadsheet reflected the following cost items:

- Selling costs – actual transport costs incurred in the sale of different models;
- Administrative costs – administrative costs incurred by JFEBS applied to production (domestic and export) on the basis of tonnes; and
- Other costs – items such as interest costs and non-operating costs (for example asset devaluations and exchange rate gains and losses). JFEBS explained that where these costs were applicable to all production, they were allocated on a per-tonne basis across all products. Where these costs were only applicable to export or domestic production, such as exchange rate gains and losses, they were applied on a per tonne basis to the relevant production.

We considered that this was a reasonable allocation of SG&A expenses and noted that in the application of these costs, all costs reflected in the P/L for Himeji were allocated to the production of goods.

5.5 Conclusion

We were able to reconcile all relevant data provided to audited accounts and source documents. In doing so, we formed the view that the cost data contained in JFEBS' REQ was an accurate, relevant and complete reflection of the actual costs incurred in manufacturing the goods.

In summary, sufficient information was obtained and verified to determine:

- a constructed normal value under section 269TAC(2)(c) of the Act for the investigation period; and

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- the cost of goods to assess ordinary course of trade under section 269TAAD of the Act.

The cost to make and sell spreadsheets form **Confidential Appendix 2**.

6 DOMESTIC SALES

6.1 General

In its REQ, JFEBS provided a detailed *Domestic sales* spreadsheet listing sales which included the following information:

- Customer name;
- Level of trade;
- Model;
- Grade;
- Shape;
- Dimension;
- Product code;
- Finish;
- Imperial or metric;
- Invoice number;
- Invoice date;
- Date of sale;
- Order number;
- Shipping terms;
- Payment terms;
- Quantity;
- Theoretical weight;
- Gross invoice value;
- Deductions/additions
- Net invoice value; and
- Inland transport.

We sought to verify the domestic sales data contained within the *Domestic sales* spreadsheet during the verification visit. Further discussion of the verification process is contained in section 6.6.

As outlined in section 3.2.1, JFEBS identified all sales of HRS made on the domestic market (within the size range of the goods subject to investigation) considered to be like goods to the HRS exported to Australia. *Table 4* outlined below, summarises the shapes and dimension by volume, incorporating all grades of steel sold domestically over the investigation period.

Shape	Description	Dimension	Weight (Kg)
AB	Equal angles	120X120X8	[REDACTED]
		130X130X12	
		130X130X15	
		130X130X9	
		150X150X10	
		150X150X12	
		150X150X15	
		150X150X19	

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Shape	Description	Dimension	Weight (Kg)
ABS	Unequal angles	150X90X12 150X90X9	██████████
CB	Channels	150X75X6.5 150X75X9 180X75X7 200X80X7.5 200X90X8	██████████
TOTAL			██████████

Table 4: Domestic sales volume

JFEBS explained that it sold HRS to stockists (either directly or through traders) and to end users (including ship builders and fabricators) on the domestic market (**Confidential Attachment DOM 1**). The majority of these sales were made through trading companies. JFEBS explained that trading companies were an important feature of the steel market in Japan and these companies played a key role facilitating sales to customers. Where a trading company was involved, JFEBS would negotiate price with the trading company and invoice them, while shipping the goods directly to the customer.

In its REQ, JFEBS provided a line by line sales listing of its domestic transactions (**Confidential Attachment DOM 2**). At the visit, JFEBS provided us with an electronic copy of the traders who supplied to each customer (**Confidential Attachment DOM 3**). It also identified sales made to related customers and/or made through related traders. We identified the following volumes of sales to the different categories of purchasers as follows:

Level of trade	Quantity Kg
Fabricators	██████████
Shipbuilders	██████████
Stockists	██████████
TOTAL	██████████

Table 5: Domestic sales by level of trade

6.2 The domestic sales process

JFEBS explained that the monthly sales process began at approximately 20th of each month when it commenced price discussion with its stockist customers. After about the 10th of the month price was fixed and a contract with customers entered into which had a cut-off date for orders for the month.

Orders were received electronically from customers and then were incorporated into the rolling schedule. Once goods were ready for shipment, they would generally be trucked or sent by barge to the customer’s warehouse. In very few instances, the customer would arrange pickup from the factory; this reflected less than ██████% of all domestic sales of like goods.

6.3 Price

As outlined in section 4.1.1, JFEBS explained that a number of factors were taken into consideration when pricing its goods for stockists including the current market situation in Japan, demand and supply dynamics, market intelligence information from customers about competitor's pricing and scrap forecast prices.

JFEBS explained that for sales to end users; its price was based on a formula that reflected changes in the scrap price. It explained that Japan had three separate scrap price indices reflecting different regions in Japan. These were averaged and the movement in the scrap cost would directly link to price changes to end users. JFEBS provided us with this pricing formula at **Confidential Attachment DOM 4**.

As with export sales, JFE explained that the factors listed above impact the base price of HRS. JFEBS has a price extras list which recorded the additional charges incurred for certain dimensions and grades. It maintained a general list of these price extras but certain customers had specific price extras lists. A price extra was also charged for delivery in certain parts of Japan (**Confidential Attachment DOM 5**). Delivery was otherwise included in the price at no extra cost.

As outlined in section 4.1.2, JFEBS explained that the price setting and sales process applies equally to both the related and non-related entities.

6.4 Level of trade

In its REQ, and outlined in section 6.1, JFEBS identified its domestic customers were stockists and end users. In its REQ and at the verification visit, JFEBS explained that the level of trade of customers does not influence the price of domestic sales of HRS, and that the primary price difference between the levels relates to the product specifications.

6.5 Verification of sales to audited financial statements –domestic

Our verification of domestic sales to the audited financial statements is explained in section 4.2. As discussed in this section, we were able to reconcile JFEBS *Domestic sales* spreadsheet upwards to JFEBS audited financial accounts. We are therefore satisfied that the *Domestic sales* spreadsheet is complete and contains only relevant sales.

6.6 Verification downwards to source documents

To assess sales data for accuracy, verification to source documents was undertaken.

In its REQ, JFEBS provided source documentation to verify two domestic sales listed in the submitted sales listing.

Prior to the verification visit, we selected ten sales from the submitted *Domestic sales* spreadsheet for verification, these are outlined below.

Invoices				

Table 6: Domestic sales verified

At our visit JFE had difficulties providing source documents for these transactions, as detailed in section 4.3, and further summarised below. JFEBS explained that:

- its hard copy records were sent to an outsourced storage facility after a certain period of time had elapsed; and

- [REDACTED]
[internal system discussion]

As a result, JFEBS had approached the relevant customers and sought some source documents from them where appropriate.

At the verification visit and following the visit, JFEBS provided:

- Commercial invoices;
- Monthly invoice data from JFEBS system (system extract of invoice details)
- Order confirmation;
- Accounts receivable trade list (both the direct relevant listing and those which form part of the total payment);
- Evidence of payment – receiving slip issued by the bank; and
- Delivery docket.

These documents form **Confidential Attachment DOM 6**.

As noted in section 4.3, the above evidence was not included in full for all selected sales transactions, however given the number of selected samples and available information; we consider the evidence provided to be reasonable for verification testing.

6.6.1 Invoice, sales data and payment

Consistent with the *Australian sales* spreadsheet, we were able to match the domestic sales information in the source documents (either the through the invoices or data extracted from JFEBS system) to the *Domestic sales* spreadsheet, including the sales volume and value, steel grades, shapes, dimensions, delivery terms, quantity, theoretical weight, order and invoice numbers and payment terms.

We reviewed the proof of payment as per section 4.3.1.

6.6.2 Delivery terms and inland transport

The domestic sales listing provided by JFEBS listed three delivery terms: free on truck (FOT), cost, insurance and freight (CIF) and ex-factory (EXW). JFEBS explained that FOT and CIF sales were delivered – CIF were sales delivered by barge and FOT (despite the usual meaning) were delivered to the customer by truck.

JFEBS explained that it was unable to calculate inland transport on a line by line basis, however calculated an average cost per tonne over the investigation for inland transport. It calculated this to be [REDACTED]/MT. This amount was applied to all sales regardless of the customer's location.

6.6.3 Credit terms

JFEBS identified that there were five different credit terms applicable to domestic customers:

- [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]. [domestic customer credit terms]

We verified the credit terms as part of our payment reconciliation for the selected samples to ensure accuracy.

6.6.4 Discounts

In the *Domestic sales* spreadsheet we identified that a very small number of reductions or additions to the price were applied at the sales contract stage to account for different circumstances of sale. These included:

- [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]. [examples of discounts and additional charges applied]

JFEBS explained that price reductions or additions were applied in the sales contract and were taken into account in the invoice price. We checked the data relating to domestic sales in relation to sales which incurred one of these additions and found that the price paid was net of these items.

6.6.5 Packing costs

JFEBS explained that there is no difference between export and domestic packaging costs and process. JFEBS explained that the goods are packaged through the application of a single steel wire as part of the bundling and marking process.

We note that JFEBS has not separately identified packing costs for either export or domestic sales, nor that any adjustments for packing costs are being claimed by JFEBS.

6.6.6 Domestic sales – conclusion

We have examined the documentation and information provided by JFEBS to support the data provided in the *Domestic sales* spreadsheet. On the basis of our downwards verification to source documents we are satisfied that the data in the domestic sales spreadsheet is accurate.

6.7 Arm's length

In respect of JFEBS' domestic sales of HRS, we found no evidence that:

- there is any consideration payable for or in respect of the goods other than their price; or
- the price is influenced by a commercial or other relationship between the buyer, or an associate of the buyer, and the seller, or an associate of the seller.

We therefore consider JFEBS domestic sales can be treated as arm's length transactions under s.269TAA.

6.8 Ordinary course of trade, and suitability of sales

We sought to identify which domestic sales of like goods were made in the ordinary course of trade (OCOT) for possible use in normal values under s.269TAC(1) of the Act.

Table 4 in this report outlines the shapes, description and dimensions JFEBS identified as like goods, that being similar, but not identical to the goods exported to Australia over the investigation period. We applied model matching criteria to identify the goods most closely resembling the goods under consideration.

The table below summarises the models matched, which was based on:

- SS400 grade of steel (refer to section 8.3 for details regarding the methodology applied to ensure that there is a fair comparison made between the like goods and the goods;
- Identical shapes (e.g. CB = channel) and all identical dimensions, including thickness, were matched directly; and
- Identical shapes, similar dimensions, including thicknesses, we aggregated all domestic sales at the shape level.

These domestic sales reflected ■% of the total domestic sales of like goods identified by JFEBS over the investigation period.

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Shape	Description	Export	Domestic	Model matched name
AB	Equal angle	150x150x10 150x150x12	150x150x10 150x150x12	150x150x10 (AB) 150x150x12 (AB)
ABS	Unequal angle	150x100x10 150x90x10 150x90x9	150x90x12 150x90x9	Aggregate (ABS)
CB	Channel	PFC150 PFC150 PFC 180 PFC 200 PFC 200	150x75x6.5 150x75x9 180x75x7 200x80x7.5 200x90x8	Aggregate Aggregate 180x75x7 Aggregate Aggregate

Table 7: OCOT models

In order to test the profitability of JFEBS domestic sales per section 269TAAD, we compared the unit (per kg) domestic selling price to the fully absorbed CTMS of the shape and dimension in the relevant quarter of sale. As per *Table 8*, we found that domestic sales at a loss were not in substantial quantities (i.e. not greater than 20% of domestic sales volume of like goods) for three of the five models. For two of the models (both CB shape), we found domestic sales at a loss in substantial quantities, which required a test of whether those sales were recoverable.

Model	Profitable Qty	Quantity (kg)	Profitable
150x150x10 (AB)	██████	██████	100%
150x150x12 (AB)	██████	██████	99.65%
180X75X7 (CB)	██████	██████	67.62%
Aggregate (CB)	██████	██████	67.35%
Aggregate (ABS)	██████	██████	100%

Table 8: Profitability test

To determine whether those sales at a loss were recoverable as per section 269TAAD(3), we compared the unit selling prices to the relevant and corresponding weighted average CTMS for the investigation period. The sales that were profitable, and those loss making sales that were recoverable, have been regarded as sold in the ordinary course of trade.

Model	Recoverable Qty	Quantity (kg)	Profitable
150x150x10 (AB)	██████	██████	100.00%
150x150x12 (AB)	██████	██████	99.82%
180X75X7 (CB)	██████	██████	82.13%
Aggregate (CB)	██████	██████	79.43%
Aggregate (ABS)	██████	██████	100.00%

Table 9: Recoverability test

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We also calculated whether the domestic sales volume of each model that was sold domestically in sales that were in OCOT, were in sufficient volume (i.e. 5% or greater than the corresponding export volume, measured separately for each model). We found that the volume of domestic sales for each model exceeded 5% of export sales, and for all but one model, the difference was significant. The results of the sufficiency test are contained in *Table 10* below:

Model Match Name	Domestic Quantity (kg)	Export Quantity (kg)	% of export quantity
150x150x10 (AB)	[REDACTED]	[REDACTED]	15%
150x150x12 (AB)	[REDACTED]	[REDACTED]	1611%
180X75X7 (CB)	[REDACTED]	[REDACTED]	1334%
Aggregate (CB)	[REDACTED]	[REDACTED]	6822%
Aggregate (ABS)	[REDACTED]	[REDACTED]	315%

Table 10: Sufficiency test

Our profitability, recoverability and sufficiency of sales assessments are at **Confidential Appendix 1**.

7 THIRD COUNTRY SALES

7.1 General

In its REQ, JFEBS provided a summary of its export sales to third countries.

Noting we considered that we were in possession of enough verified information from the submission and the verification visit to calculate normal values for HRS using domestic sales or a constructed method, we did not undertake detailed verification of the third country data.

8 ADJUSTMENTS

To ensure that the normal value was comparable to the Australian export price, the following adjustments were made:

8.1 Domestic and export inland freight

JFEBS submitted that a downwards adjustment to the normal value is required for domestic inland freight. While JFEBS was unable to calculate the domestic inland freight amount on a line by line basis, it did calculate the weighted average inland freight amount incurred per MT over the investigation period. JFEBS also provided evidence to demonstrate that an upwards adjustment to the normal value was required for export inland freight costs. JFEBS provided evidence of these costs on a shipment by shipment basis.

In order to arrive at a normal value that is comparable to an FAS export price, we have made a downward adjustment for the domestic inland freight based on a weighted average cost and we have adjusted the normal values upwards for export inland freight.

8.2 Credit terms

We identified that domestic and export sales incurred different credit terms and that credit terms affected the price. For example, domestic customers that paid cash at the end of the month received a lower price.

We therefore consider that a downwards adjustment is required to the normal value for domestic credit terms and an upwards adjustment is then required for export credit terms. JFEBS provided us with its monthly interest rates which were used to make these adjustments in addition to the credit terms of individual sales.

8.3 Physical differences

Adjustments may be made to allow for differences in physical characteristics where the differences can be quantified and supported by verifiable evidence. Adjustments are only considered by the Commission where differences affect price comparability, and are made to enable fair comparison between like goods and the goods.

To calculate normal value, we selected grade SS400 as the basis, noting the sales volume and the cost to make data available associated with producing different grades for both domestic and exported HRS to Australia. We observed that the SS400 has differing specifications to the G300 HRS exported to Australia. These differences relate to differing chemical composition and mechanical properties. Therefore, we considered it necessary to adjust for the difference to ensure a fair comparison is made between the like goods and the goods. Using G300 as a benchmark, we made an upwards adjustment to normal value to reflect the difference in production costs between the SS400 and G300, on a model-by-model, quarterly, weighted average basis.

In addition, and as outlined in section 5.2, JFEBS explained and we verified that it sought to 'roll light' its HRS products and produce to a maximum tolerance level as per the JIS G3101 standard. In making a physical adjustment, we have also accounted for the

tolerance differences between the grades, as these differences were factored into the costs.

8.4 Other matters considered

8.4.1 ‘Rolled in’ brand identifier

JFEBS explained that, for the Australian standard (AS/NZ 3679.1:2010) it is a requirement that HRS has a ‘rolled in’ brand identifier (Confidential **GEN 8**). JFEBS explained that the lifecycle of the rolls are driven by the actual tonnes processed, and detailed the costs associated with rolls used to produce HRS compliant with the Australian standard.

We considered the costs associated with the ‘rolled in’ brand identifier, and found that any such difference would be immaterial to the calculated dumping margin, and therefore made no adjustment to normal value to account for this physical difference.

8.4.2 Warehousing

In the submitted *Domestic sales* and *Australia sales* spreadsheet, JFEBS did not specify separate costs for warehousing HRS. JFEBS explained that there was no pricing impacts on Australian and domestic sales, in terms of the different timeframes in which the goods are held prior to dispatch in their respective markets. We found no evidence to support the existence of price impacts in verifying export and domestic pricing, and furthermore in both the Domestic and Export pricing extra guides provided by JFEBS covering the investigation period, there were no stated additional charges for warehousing. We consider no adjustment for warehousing is warranted.

8.5 Adjustments – Conclusion

We are satisfied that there is sufficient and reliable information to justify the following adjustments, in accordance with s.269TAC(8) of the Act, and we consider these adjustments are necessary to ensure a fair comparison of normal values and export prices:

Adjustment type	Description
Domestic inland freight	Deduct the weighted average domestic inland freight costs.
Export inland freight	Add the weighted average export inland freight cost over the investigation period (to arrive at an FAS price).
Domestic credit terms	Deduct the actual cost of domestic credit.
Export credit terms	Add the cost of export credit.
Physical differences	Uplift the normal value by the production cost difference between steel grade SS400 and G300.

Table 11: Adjustments

9 NORMAL VALUE

As discussed in section 6.8, JFEBS sold HRS models on the domestic market that were comparable to models exported to Australia. These sales were in the ordinary course of trade and were in sufficient volumes.

We therefore used the domestic selling prices of the comparable models as the basis of normal value in terms of section 269TAC(1) of the Act. We adjusted those domestic selling prices to ensure normal values were properly comparable with export prices. These adjustments were made in terms of section 269TAC(8) of the ACT and are outlined in section 8 of the report.

Normal value calculations based on domestic sales are at **Confidential Appendix 1**.

10 DUMPING MARGIN

10.1 General

We compared the weighted average of export prices (at FAS terms) over the whole of the investigation period with the weighted average of corresponding normal values (also at FAS) over the whole of that period, in accordance with s. 269TACB(2)(a) of the Act.

The weighted average dumping margin for the goods exported to Australia by JFEBS is **14.28%**.

Details of the dumping margin calculations are at **Confidential Appendix 1**.

11 APPENDICES AND ATTACHMENTS

Non-Confidential Attachment 1	Domestic goods specifications
Confidential Appendix 1	Export price calculations, CTMS, OCOT & Sufficiency Analysis, Normal Values and Dumping Margins
Confidential Appendix 2	CTMS spreadsheet
Confidential Attachment GEN 1	Organisation chart, listing of the principal shareholders of JFE holdings and JFEBS subsidiaries and other related companies
Confidential Attachment GEN 2	List of related parties
Confidential Attachment GEN 3	Chart of accounts
Confidential Attachment GEN 4	Annual report 2012
Confidential Attachment GEN 5	Audited financial statements for 2011 and 2012
Confidential Attachment GEN 6	Powerpoint presentation – Himeji works
Confidential Attachment GEN 7	J-Face system process flow
Confidential Attachment GEN 8	JFEBS rolled in brand identifier
Confidential Attachment EXP 1	Importing chain
Confidential Attachment EXP 2	Sales contract
Confidential Attachment EXP 3	Management report
Confidential Attachment EXP 4	Export and domestic sales reports
Confidential Attachment EXP 5	Resubmitted Australian sales spreadsheet
Confidential Attachment EXP 6	Commercial documents
Confidential Attachment EXP 7	Inland freight charges
Confidential Attachment CTMS 1	CTMS information provided in the exporter questionnaire response
Confidential Attachment CTMS 2	Quarterly and individual monthly production reports for like goods

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Confidential Attachment CTMS 3	Quarterly and individual monthly production reports for all goods produced at Himeji
Confidential Attachment CTMS 4	Profit and loss statements for Himeji
Confidential Attachment CTMS 5	Records of theoretical weight checks
Confidential Attachment CTMS 6	Documents relating to the verification of scrap
Confidential Attachment CTMS 7	Documents relating to the verification of electricity
Confidential Attachment CTMS 8	Documents relating to the verification of depreciation
Confidential Attachment DOM 1	Domestic sales spreadsheet
Confidential Attachment DOM 2	Distribution channels to domestic customers
Confidential Attachment DOM 3	List of domestic traders
Confidential Attachment DOM 4	Pricing formula
Confidential Attachment DOM 5	Price extra's
Confidential Attachment DOM 6	Commercial documents

Annex C-4 (1) : Spec of the goods on the domestic market

鋼種規格(1)

強度区分	規格名	年次	化学成分(質量%)											機械試験値		衝撃値		記事			
			厚さ区分	x100											N/mm ² YP	N/mm ² TS	◎		J		
				C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb							
400N (40キ口級)	JIS	SS400	t≤16	-	-	-	-/50	-/50	-	-	-	-	-	-	-	245/-	400/510				
			SM400A	t≤16	-/23	-	2.5XC≤	-/35	-/35	-	-	-	-	-	-	-	245/-	400/510			
			SM400B	t≤16	-/20	-/35	60/140	-/35	-/35	-	-	-	-	-	-	-	245/-	400/510	0	27≤E	
				16<t	-/20	-/35	60/140	-/35	-/35	-	-	-	-	-	-	-	235/-	400/510	0	27≤E	
			SN400A		-/24	-	-	-/50	-/50	-	-	-	-	-	-	-	235/-	400/510			
			SN400B	t≤12	-/20	-/35	60/140	-/30	-/15	-	-	-	-	-	-	-	235/-	400/510	0	27≤E	Ceq(2:WES)≤0.36%
	造船 Ship	A	12<t	-/20	-/35	60/140	-/30	-/15	-	-	-	-	-	-	235/355	400/510	0	27≤E	Ceq(2:WES)≤0.36%		
		B		-/21	-/30	2.5XC≤	-/35	-/35	-/35	-	-	-	-	-	235/-	400/520			C+Mn/8≤0.4%		
	JIS	SMA400AW		-/18	15/65	-/125	-/35	-/35	30/50	5/30	45/75	-	-	-	245/-	400/540					
		SMA400BW	t≤16	-/18	15/65	-/125	-/35	-/35	30/50	5/30	45/75	-	-	-	245/-	400/540	0	27≤E			
			16<t	-/18	15/65	-/125	-/35	-/35	30/50	5/30	45/75	-	-	-	235/-	400/540	0	27≤E			
490N (50キ口級)	JIS	SS490	16<t	-	-	-	-/50	-/50	-	-	-	-	-	-	285/-	490/610					
				-/20	-/55	-/160	-/35	-/35	-	-	-	-	-	-	325/-	490/610					
		SM490A	t≤16	-/18	-/55	-/160	-/35	-/35	-	-	-	-	-	-	325/-	490/610	0	27≤E			
			16<t	-/18	-/55	-/160	-/35	-/35	-	-	-	-	-	-	315/-	490/610	0	27≤E			
		SM490YA	t≤16	-/20	-/55	-/160	-/35	-/35	-	-	-	-	-	-	385/-	490/610					
			16<t	-/20	-/55	-/160	-/35	-/35	-	-	-	-	-	-	355/-	490/610					
		SM490YB	t≤16	-/18	-/55	-/160	-/35	-/35	-	-	-	-	-	-	365/-	490/610					
			16<t	-/18	-/55	-/160	-/35	-/35	-	-	-	-	-	-	355/-	490/610					
		SN490B	t≤16	-/18	-/55	-/160	-/30	-/15	-	-	-	-	-	-	325/-	490/610	0	27≤E	Ceq(3)≤0.44%		
			16<t	-/18	-/55	-/160	-/30	-/15	-	-	-	-	-	-	325/445	490/610	0	27≤E	Ceq(3)≤0.44%		
		SM520B	t≤16	-/20	-/55	-/160	-/35	-/35	-	-	-	-	-	-	365/-	520/640	0	27≤E			
			16<t	-/20	-/55	-/160	-/35	-/35	-	-	-	-	-	-	355/-	520/640	0	27≤E			
		造船 Ship	AH32		-/18	10/50	90/160	-/35	-/35	-/35		-/20			50/100	315/-	440/590	0	34≤E	Sol.Al≥0.015%,Ceq(3)≤0.36%	
			AH36		-/18	10/50	90/160	-/35	-/35	-/35		-/20			50/100	355/-	490/620	0	34≤E	Sol.Al≥0.015%,Ceq(3)≤0.36%	
JIS	SMA490AW	t≤16	-/18	15/65	-/140	-/35	-/35	30/50	5/30	45/75	-	-	-	365/-	490/610						
		16<t	-/18	15/65	-/140	-/35	-/35	30/50	5/30	45/75	-	-	-	355/-	490/610						
SMA490BW	t≤16	-/18	15/65	-/140	-/35	-/35	30/50	5/30	45/75	-	-	-	365/-	490/610	0	27≤E					
	16<t	-/18	15/65	-/140	-/35	-/35	30/50	5/30	45/75	-	-	-	355/-	490/610	0	27≤E					

鋼種規格(2)

強度区分	規格名	年次	厚さ区分	化学成分(質量%)										機械試験値		衝撃値		記事	
				x100					x1000					N/mm ² YP	N/mm ² TS	C	J		
				C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V						Nb
490Nクラス (50キ口級)	JIS	SS490	16<t	-	-	-	-/50	-/50	-	-	-	-	-	285/-	490/610				
		SM490A		-/20	-/55	-/160	-/35	-/35	-	-	-	-	-	325/-	490/610				
		SM490B	t≤16	-/18	-/55	-/160	-/35	-/35	-	-	-	-	-	325/-	490/610	0	27≤E		
			16<t	-/18	-/55	-/160	-/35	-/35	-	-	-	-	-	315/-	490/610	0	27≤E		
		SM490YA	t≤16	-/20	-/55	-/160	-/35	-/35	-	-	-	-	-	365/-	490/610				
			16<t	-/20	-/55	-/160	-/35	-/35	-	-	-	-	-	355/-	490/610				
		SM490YB	t≤16	-/18	-/55	-/160	-/35	-/35	-	-	-	-	-	365/-	490/610				
			16<t	-/18	-/55	-/160	-/35	-/35	-	-	-	-	-	355/-	490/610				
	SN490B	t≤16	-/18	-/55	-/160	-/30	-/15	-	-	-	-	-	325/-	490/610	0	27≤E	Ceq(3)≤0.44%		
		16<t	-/18	-/55	-/160	-/30	-/15	-	-	-	-	-	325/445	490/610	0	27≤E	Ceq(3)≤0.44%		
	SM520B	t≤16	-/20	-/55	-/160	-/35	-/35	-	-	-	-	-	365/-	520/640	0	27≤E			
		16<t	-/20	-/55	-/160	-/35	-/35	-	-	-	-	-	355/-	520/640	0	27≤E			
	造船	AH32			-/18	10/50	90/160	-/35	-/35	-/35		-/20		50/100	315/-	440/590	0	34≤E	Sol.Al≥0.015%, Ceq(3)≤0.36%
		AH36			-/18	10/50	90/160	-/35	-/35	-/35		-/20		50/100	355/-	490/620	0	34≤E	Sol.Al≥0.015%, Ceq(3)≤0.36%
ASTM	A529 G50			-/27	-/40	-/135	-/40	-/50	*	*	*	*	*	345/-	450/690				
	A529 G55			-/27	-/40	-/135	-/40	-/50	*	*	*	*	*	380/-	485/690				
	A572 G50			-/20	-/40	50/150	-/40	-/50	-	-	-	-	10/150	345/-	450/-			Mn/C≥2	
BS	BS4360-50B			-/20	-/50	-/150	-/50	-/50	-	-	-	-	3/100	355/-	490/640				
	BS4360-50C			-/20	-/50	-/150	-/50	-/50	-	-	-	-	3/100	355/-	490/640	0	27≤E		
EN	EN10025 S355JR	1993	t≤16	-/24	-/55	-/160	-/45	-/45	-	-	-	-	-	355/-	490/630	+20	27≤E	N≤0.0090%	
			16<t	-/24	-/55	-/160	-/45	-/45	-	-	-	-	-	345/-	490/630	+20	27≤E		
		2004	t≤16	-/24	-/55	-/160	-/35*	-/35*	-/55	-	-	-	-	355/-	470/630	+20	27≤E	N≤0.0120%	
			16<t	-/24	-/55	-/160	-/35*	-/35*	-/55	-	-	-	-	345/-	470/630	+20	27≤E		
	EN10025 S355J0	1993	t≤16	-/20	-/55	-/160	-/40	-/40	-	-	-	-	-	355/-	490/630	0	27≤E	N≤0.0090%	
		2004	t≤16	-/20	-/55	-/160	-/30*	-/30*	-/55	-	-	-	-	355/-	470/630	0	27≤E	N≤0.0120%	
	16<t	-/20	-/55	-/160	-/30*	-/30*	-/55	-	-	-	-	345/-	470/630	0	27≤E				
JIS	SMA490AW		t≤16	-/18	15/65	-/140	-/35	-/35	30/50	5/30	45/75	-	-	365/-	490/610				
			16<t	-/18	15/65	-/140	-/35	-/35	30/50	5/30	45/75	-	-	355/-	490/610				
	SMA490BW		t≤16	-/18	15/65	-/140	-/35	-/35	30/50	5/30	45/75	-	-	365/-	490/610	0	27≤E		
			16<t	-/18	15/65	-/140	-/35	-/35	30/50	5/30	45/75	-	-	355/-	490/610	0	27≤E		
ASTM	A588 G-A			-/21	30/65	80/125	-/40	-/50	25/40	-/40	40/65	-	20/100	345/-	485/-				

鋼種規格(3)

強度区分	規格名	年次	化学成分(質量%)											機械試験値		衝撃値		記事	
			厚さ区分	x100			x1000		x100			x1000			N/mm2 YP	N/mm2 TS	°C		J
				C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb					
540Nクラス (55キロ級)	JIS	SS540	t≤16	-/30	-	-/160	-/40	-/40	-	-	-	-	-	-	400/-	540/-			
			16<t	-/30	-	-/160	-/40	-/40	-	-	-	-	-	-	390/-	540/-			
	SH590S	t≤16	-/18	-/40	-/180	-/35	-/30	-	-	-	-	*	*	440/-	590/-			Ceq(3)≤0.45%	
		16<t	-/18	-/40	-/180	-/35	-/30	-	-	-	-	*	*	440/-	590/-			Nb+V≤0.15%	
異形棒鋼	ASTM	A572 G60																	
			A572 G65	-/21	-/40	-/160	-/40	-/50	-	-	-	-	10/150		450/-	550/-			
	BS	BS4360-55C		-/22	-/60	-/160	-/40	-/40	-	-	-	-	3/200		450/-	550/700	0	27≤E	
異形棒鋼	JIS	SD295A		-	-	-	-/50	-/50	-	-	-	-	-	-	295/-	440/600			
			SD295B	-/27	-/55	-/150	-/40	-/40	-	-	-	-	-	-	295/390	440/-			
			SD345	-/27	-/55	-/160	-/40	-/40	-	-	-	-	-	-	345/440	490/-			C+Mn/6≤0.50%
			SD390	-/29	-/55	-/180	-/40	-/40	-	-	-	-	-	-	390/510	560/-			C+Mn/6≤0.55%
			SD490	-/32	-/55	-/180	-/40	-/40	-	-	-	-	-	-	490/625	620/-			C+Mn/6≤0.60%
	ASTM	A615 G40													300/-	500/-			
			A615 G60												420/-	620/-			
			A615 G75												520/-	690/-			
			A706												420/540	550/-			TS≥YPx1.25