



11 September 2020

Director
Investigations 1
Anti-Dumping Commission
GPO Box 2013
Canberra ACT 2601

BY EMAIL:

Investigations1@adcommission.gov.au

Dear Director,

Reinvestigation of Certain Findings in Report Nos. 499 and 505 concerning hot rolled structural steel sections exported from Japan, Korea, Taiwan and Thailand

**AUSTRALIAN INDUSTRY RESPONSE TO
ANTI-DUMPING COMMISSION PRELIMINARY REPORT**

ONESTEEL MANUFACTURING PTY LIMITED (**Liberty Steel**) the sole member of the Australian industry producing like goods to the goods the subject of the original review and inquiry, refers to the Commission's *Preliminary Reinvestigation Report (Report)*¹ and makes the following observations and comments in response.

The use of paragraph numbers, headings and sub-headings below follow those contained in the Report.

- 2.1 [Siam Yamato Steel Co. Ltd] (Siam)**
- 2.1.3 Like goods and model matching**
- 2.1.6 Dumping margin**

We observe the Commission's uncited comment:

As noted by the ADRP, when considering normal value, the comparison of the exported good to an identical good sold on the domestic market is consistent with the legislation, and reduces the need for the decision maker to consider whether an adjustment is required to enable a fair comparison for any differences between the exported goods and the models of the 'comparable goods' sold on the domestic market.²

¹ EPR Folio No. 505/062.

² Report, p. 8.

We observe the commentary of Senior Panel Member Fitzhenry in the recently concluded ADRP Report No. 100 concerning Wind Towers exported from the People's Republic of China. In that report, the Senior Panel Member helpfully summarised the domestic law on the question of what goods must form part of the determination of a normal value under s.269TAC(1)³:

25. ...Relevant sales for the purpose of determining a price under s.269TAC(1) are the sales described in that subsection, that is, "goods sold in the ordinary course of trade for home consumption in the country of export in sales that are arms length transactions by the exporter or, if like goods are not sold by the exporter, by other sellers of like goods".
26. There is no reference in the legislation to sales not being suitable for the ascertainment of normal value under s.269TAC(1) because technical differences mean the models of the goods sold domestically cannot be matched with the models exported to Australia. Those technical differences may mean that the goods are not like goods. If, however the goods sold domestically in the country of export are like goods and those goods are sold by the exporter in the OCOT and in sales that are arms length, then they are relevant sales for the purpose of s.269TAC(1).
27. The ADC's approach requires a gloss to be put on the wording of s.269TAC(1). There is no basis for this. There is no ambiguity in the wording of s.269TAC(1) and it is the words of s.269TAC(1) to which regard must be had [original fn 9 refers to Anti-Dumping Authority & Anor v Degussa AG & Anor [1994] FCA 677 per Sheppard J at page 7]. If there are domestic sales within the description of s.269TAC(1) then those sales are to be used to ascertain the normal value of the exported goods, subject to any adjustments under s.269TAC(8). Of course, if any of the circumstances described in the following subsections such as a low volume of sales or a particular market situation are found then s.269TAC(1) is not applicable.
28. The Exporter Verification Report notes that "the verification team considers that model matching between Australian and domestic sales to determine a normal value under subsection 269TAC(1)...is not possible". The use of model matching may be a practical way of taking into account differences in like goods or between the different GUC. To the extent that like goods are not identical, then adjustment may need to be made as required by s.269TAC(8). However, difficulties in taking a model matching approach are not a basis for discarding domestic sales of like goods which otherwise meet the criteria of s.269TAC(1) and do not fall within the excluding categories in s.269TAC(2).
29. The approach taken by the ADC to s.269TAC(2) would mean that the Minister had a broad discretion under s.269TAC(2) to disallow sales which were not considered to be comparable or relevant for determining a price under s.269TAC(1). I can discern no such legislative intention in s.269TAC(2) and it would be contrary to the otherwise prescriptive nature of the circumstances in s.269TAC(2) which allow the Minister to ascertain the normal value of exports under s.269TAC(2)(c).
30. In Anti-Dumping Authority & Anor v Degussa AG & Anor [original fn 10] the Full Court of the Federal Court confirmed that sales which fell within s.269TAC(1) could not be ignored on the basis of some criteria not found in the legislation. It is the words of s.269TAC(1) to which regard must be had. While the decision in Degussa was distinguished by the

³ All legislative references in this report are to the Customs Act 1901 unless otherwise specified.

court in Pilkington (Australia) Ltd v Minister of State for Justice & Customs, ^{[original fn 11 refers to [2002] FCAFC 423]} *on the basis of subsequent changes to the legislation, this does not affect the comments with respect to s.269TAC(1) and s.269TAC(2) on this point.*⁴

Accordingly, the Commission must reconsider the normal value determined by Siam in light of the direction provided by the Senior Panel Member in *ADRP Report 100*, and include in the ascertainment of the normal value under s.269TAC(1) all those goods sold domestically in the country of export that are like goods and those goods are sold by the exporter in the OCOT and in sales that are arms length, without exclusion, subject to making the necessary adjustments under s.269TAC(8).

2.1.5 Adjustments – credit terms

Liberty Steel is concerned that the Commission is asking the wrong question with respect to the making of an adjustment under s.269TAC(8) to the normal value on account of credit terms adjustments: the question is not whether an ‘internally’ or ‘externally’ derived interest rate should be used to calculate the amount of the adjustment, but rather, is there a discernible price difference between “cash” and “terms” sales within the domestic market. If so, what is the amount of that difference based on price comparability, compared to a ‘construction’ of a perceived ‘cost’ of credit. The terms of s.269TAC(8) clearly limit the making of adjustments to a normal value determined under s.269TAC(1) to ensure that the *...price paid or payable for like goods is to be taken to be such a price adjusted... so that those differences would not affect its comparison with that export price*. The role of the cost of any difference is not relevant to the making of an adjustment under s.269TAC(8), as outlined by the Senior Panel Member in *ADRP Report 100*:⁵

109. *In GTE (Aust) Pty Ltd v Brown, Burchett J. when referring to an earlier legislative version of s.269TAC(8) stated:*

the domestic price paid is required to be adjusted in accordance with directions by the Minister, so that those differences would not affect its comparison with the export price. I have said it is required to be adjusted, because I think that is the effect to be given to the words "is to be taken to be". The extent of the adjustment required is indicated by the purpose: it is to be "so that those differences would not affect its comparison" with the export price. ^{[original fn 41: [1986] FCA 536 at page 51]}

110. *The purpose of an adjustment to the normal value has also been described as “to ensure that like is compared to like”.* ^{[original fn 42: *Powerlift (Nissan) Pty Ltd v Minister of State for Small Business, Construction and Customs & Ors* [1993] FCA 38 per Hill J.]}

111. *The extent of the adjustment that can be made under s.269TAC(8) is only what is required to remove the effect the physical differences have on the comparison between the exported goods and those sold domestically. It is not necessary to remove*

⁴ ADRP Report No. 100, *Wind Towers exported from the People’s Republic of China*, April 2020, pp. 11 - 12.

⁵ ADRP Report No. 100, pp. 30 - 31.

the effect of the physical differences to uplift the cost of the goods sold domestically. It is not necessary to compare like to like. (emphasis added)

2.2 Hyundai

2.2.5 Physical differences of the different grades of HRS

At the outset, Liberty Steel acknowledges the improved disclosure in the Report of the grades of HRS sold domestically by Hyundai and considered like to the goods exported to Australia. It lends some transparency to the process followed by the Commission in adjusting the normal value for price comparability.⁶

The Commission has compared the minimum yield and tensile strengths for the grades sold domestically which fall within the same minimum yield strength and tensile strength sub-categories (B-B) of the MCC structure as the grade exported to Australia. This comparison of the minimum yield and tensile strengths of grades falling under the B-B MCC categories are shown in Table 1 below:

Grade	Domestic/Export	Minimum Yield (MPa)	Minimum Tensile (N/mm ²)
AH32	Domestic	315	440-570
S275	Domestic	255-275*	410-560
SM275	Domestic	245-275*	400-510
SS275	Domestic	245-275*	410-550
SHN275	Domestic	275-395	410-520
SHP275	Domestic	265-275	410-550
AS/NZ 300	Export	280-320	440

**minimum yield strength above 265MPa for majority of thicknesses*

Table 1: Minimum yield and tensile strengths in the Australian and Korean steel standards

It appears that the Commission has considered the “B-B” grades only; as Grade 300 was determined to be a “B-B” grade in the MCCs. On the question of physical differences requiring adjustment, they concluded:

As the Australian grade is not identical to the any of the domestic grades due to the differences in physical characteristics as required by the Australian and Korean steel standards, the Commission is satisfied that there are physical differences between the grades sold domestically in Korea and that exported to Australia.⁷

Rightly, the Commission attempts to examine price comparability, but does so using circular reasoning:

The Commission has been unable to directly examine the price comparability between the export goods and domestic goods as the exported and domestic grades have not been sold in the same market to enable this comparison.⁸

⁶ Report, pp. 11 – 12.

⁷ Report, p. 12.

⁸ Report, p. 12.

The Commission has applied the wrong reasoning. The question of price comparison between models cannot be performed across different markets, but within the same market. The approach may be incremental, for example, two different lengths of steel may be sold across the export and domestic market, both may have the same grade. To examine whether there is a price premium or discount for the different lengths, you do not necessarily need to compare different lengths sold in the domestic market for the same grade (exported), but may explore how the domestic market treats length differences for an alternate grade sold domestically (but not necessarily exported).

Although the Commission was unable to apply a direct match within “B-B” grades sold domestically, the Commission has erred in law by proposing an adjustment be made based on a cost comparison proposed by the exporter:

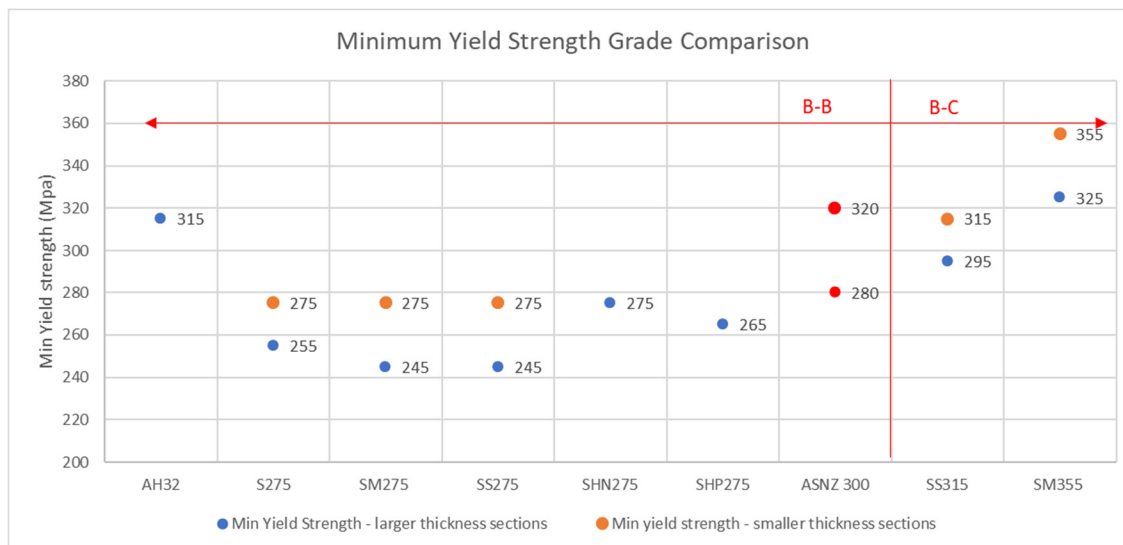
Given the Commission has been unable to directly examine the price comparability, the Commission has conducted this analysis of the cost comparability between the domestic and exported goods put forward by Hyundai.⁹

By doing so, the Commission has not only erred in law, but repeats the error it performed in its recently concluded *Reinvestigation Report to the Anti-Dumping Review Panel Reinvestigation of Certain Findings in Report No. 487*, namely using the requirement on the Minister to make an adjustment under s.269TAC(8) for physical differences as a means of calculating a *crypto-constructed normal value* based on cost differences. The Senior Panel Member there rejected any such use of s.269TAC(8) stating that ...[a]n adjustment under s.269TAC(8) is limited to the purpose for which it is being made.¹⁰

Regrettably, the introduction of MCC designation has displaced the consideration of market segmentation for the easier, and less contestable, drive to achieve a perfect match of physical and mechanical properties between the domestically sold and exported goods. For structural steel selection, strength considerations are the most important selection criteria for customers and as such tend to drive pricing considerations. Minimum yield strength defines the point at which the structural member will start to yield or deform as force is exerted (a key selection criteria in structural design), minimum tensile strength defines the point at which catastrophic failure of the structural section is initiated (typically not the key selection criteria but also determined as part of a tensile test). Ideally, disclosure of what the “B-C” grades were, would permit an understanding of what other grades Hyundai sells that may have factored into price comparability considerations. Until such disclosure is made, which permits an understanding of the underlying market parameters being applied, then the Commission is beholden to the direction of Hyundai on these matters, and Liberty Steel is excluded from any meaningful submissions on this question of price comparability. This is grossly prejudicial to Liberty Steel’s interests. For example, the most that we can submit on this point, is to suggest that a pricing comparison with the “B-B” grades and the “B-C” grades (on the basis of minimum yield strength and/or tensile strength) be made. If for example, the Commission found the *higher* strength grades sell for a higher price than the *lower* strength grades, then it is appropriate to make an adjustment for Grade 300 at the median price premium level. This is best explained graphically:

⁹ Report, p. 12.

¹⁰ ADRP Report No. 100, p. 30 at [108].

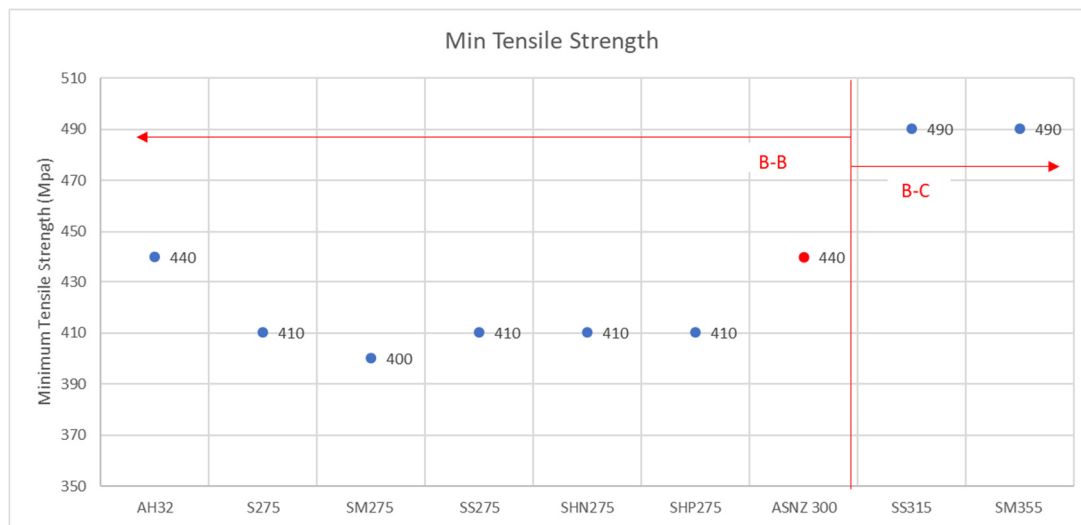


This above graph shows the Minimum Yield Strength required for each of the grades as defined by their applicable Standard. Where a grade has two values indicated it shows the range of Minimum Yield Strength defined for that grade for a specific thickness range (where a Standard specifies a different minimum for a given section thickness). It is clear that, with the exception of ship-building grade AH32¹¹, none of the grades in the “B-B” category have a Minimum Yield Strength (or Minimum Yield Strength range based on thickness), that meets that of the export goods i.e. grade ASNZ 300. For the sake of pricing comparison, the Commission may look at some of the grades also having a “B” classification for minimum yield strength e.g. Grades SS315 and SM355. These were likely excluded from consideration given they had been designated “B-C” grades, not “B-B” grades. Perhaps a pricing comparison might have shown that grades with a minimum yield strength value in the range 245 to 275MPa (S275, SM275, SS275, SHN275 and SHP275) had a different price point to a grade with minimum yield strength 295MPa to 315MPa (SS315) and a different price point again to a grade with minimum yield strength 325 to 355MPa (SM355).¹²

A comparison of domestic grade pricing on the basis of Minimum Tensile Strength may have provided a similar view as provided graphically below:

¹¹ NON-CONFIDENTIAL ATTACHMENT 1

¹² NON-CONFIDENTIAL ATTACHMENT 2



Again, with a comparison of selling prices for grades based on minimum tensile strength as defined by the relevant Standards, a comparison of prices for grades having a minimum tensile strength of 400 to 410MPa, with those having a minimum tensile strength of 490MPa might have provided a suitable basis for adjustments. If pricing for grades having a minimum tensile strength of 490MPa delivered a different price point to grades with minimum tensile strength at 400-410MPa it might have prompted a midway adjustment for Grade AZ/NZ 300 as it has a minimum tensile strength of 440MPa i.e. somewhere midway between these grade groups.

Although the analysis is complicated, Liberty Steel is concerned that the MCCs have driven an approach where price comparability is rapidly abandoned for cost comparison (analysis often provided by the exporter) in the absence of an 'obvious' direct match i.e. hence the conclusions that the Commission cannot compare "B-B" and "B-C" grades because the export grade has been designated "B-B". In light of the requirements of s.269TAC(8), it is not permissible to abandon price comparison for a comparison of costs.

2.3 TS Steel

2.3.3 Findings in REP 499

For the sake of clarity, we begin by repeating some of the key findings and shortcomings in the *exporter verification report* for TS Steel.¹³ Firstly, a single MCC was reported to have been determined for like goods sold domestically to those exported to Australia, namely, **P-A-B-B- -L-Y**.¹⁴ Given there was only a single model applicable to both domestic like goods and export sales, the CTM analysis below was confusing.

3.1 Assessment of Cost to Make

In its REQ TS Steel reported separate cost of production figures relevant to the models it sold on the domestic market and those exported to Australia during the review period. The verification team's examination of this data revealed that where the same MCC was sold into

¹³ EPR Folio No. 499/021.

¹⁴ EPR Folio No. 499/021, p. 3.

either market, TS Steel relied on an identical cost base for the purpose of presenting a unit cost of production.

The verification team identified that this approach was similar to other exporters whose production cost data was subject to verification and on this basis the approach adopted by TS Steel is considered acceptable. As a result the verification team were not required to undertake a separate examination of the domestic and Australian cost to make reported by TS Steel in its REQ. The verification team identified no sales and cost data regarding goods exported to Australia for quarters 1 and 2 and TS Steel confirmed that there was no production and sale of these goods for those quarters.

Being satisfied with the preparation of the CTM data reported by TS Steel, the verification team compared the quarterly and review period weighted average unit CTM reported by TS Steel against the figure reported by the verified exporter. Minor variances were observed between the figures reported by TS Steel and the verified exporter and these variances were not considered indicative of an underlying error in TS Steel's costs.¹⁵ (emphasis added)

Similarly, with respect to SG&A, the original inquiry team refer to multiple models of like goods sold domestically:

3.2 Assessment of Indirect Selling, General and Administration Costs (SG&A)

The verification team calculated a weighted average unit indirect SG&A cost and a proportion of SG&A costs against total revenue for the domestic sales of each like goods model and compared them to the results calculated for the verified exporter in the review.¹⁶ (emphasis added)

5.3 Ordinary Course of Trade

The one domestic model had sales within OCOT.¹⁷ (emphasis added)

But confusingly, an apparently contradictory conclusion was reached in the assessment of the normal value for TS Steel:

7.0 Normal Value

The verification found that there were models with sufficient volumes of domestic sales of the goods, exported to Australia, that were arms length transactions and at prices that were within the OCOT. The verification team is therefore satisfied that the prices paid in respect of domestic sales of these models of the goods are suitable for assessing normal value under subsection 269TAC(1).

In using domestic sales as a basis for normal value, the verification team considers that certain adjustments, in accordance with subsection 269TAC(8), are necessary to ensure fair comparison of normal values with export prices, as outlined in Section 6 (above).¹⁸

¹⁵ EPR Folio No. 499/021, p. 45.

¹⁶ EPR Folio No. 499/021, p. 5.

¹⁷ EPR Folio No. 499/021, p. 9.

¹⁸ EPR Folio No. 499/021, p. 12.

Finally, it appears that a downward adjustment was made for domestic credit terms and an upward adjustment for export handling costs, resulting in the determination of a dumping margin for TS Steel of 2.1%.

Then in SEF 499 a few conclusions changed.

Firstly, with no clarification of the amendments (what additional MCCs had been identified?), the Commission changed the MCC subcategories and consequently the normal value and export price determinations:

5.6.2 TS Steel

Subsequent to the publication of the verification report, the Commission obtained further information from TS Steel. The Commission found that amendments were required in respect of the designation of steel grades and MCC subcategories for a number of domestic sales. The Commission has revised its calculation of the preliminary dumping margin accordingly.¹⁹

5.6.2.2 Normal value

Following the receipt of revised data and a review of the preliminary normal value calculation, the Commission found that for the Australian export model there were insufficient volumes of sales made in the OCOT of an equivalent domestic model.

The normal value was established under section 269TAC(2)(c) based on:

- ***the cost to make the exported model based on the company's records in accordance with section 43(2) of the Regulation;***
- *domestic SG&A expenses that would be incurred on the assumption that the exported goods are sold on the domestic market based on the company's records in accordance with section 44(2) of the Regulation; and*
- ***an amount for profit based on the production and sale of like goods by Tung Ho on the domestic market in the OCOT in accordance with section 45(2) of the Regulation.**²⁰*

5.6.2.1 Export Price

The Commission determined that it is not appropriate to determine TS Steel's export price under section 269TAB(2B) after considering the factors in section 269TAB(2A)(b).

*The Commission has **found a pattern of trade in which TS Steel's exports of HRS remained consistent for a period since the original investigation and increased substantially during the review period (to volumes greater than those in the original investigation period)**. The Commission considers that in these circumstances, section 269TAB(2B) does not apply.²¹*

¹⁹ SEF 499, p. 35.

²⁰ SEF 499, p. 36.

²¹ SEF 499, p. 35.

Without any additional information concerning changes to the models in the Final Report (REP 499), the revised dumping margin concluded in SEF 499 of -1.6% was upheld.

Some insight was provided in the *Preliminary Reinvestigation Report* to the model amendments made for TS Steel following verification:

It is important to note that the main differentiation between the grades sold by TS Steel was the minimum yield strength. TS Steel sold grades in two MCC categories during the review period, one below and one above the 265MPa yield strength. No other physical characteristic differences could be observed in the other MCC categories of HRS sold by TS Steel.²²

MCC	Export/Domestic	Domestic sales in OCOT
P-A-A-B-L-Y	Domestic	Yes
P-A-B-B-L-Y	Domestic and Export	No

Table 2: MCC categories sold by TS Steel during review period

As TS Steel made no domestic sales in the OCOT of P-A-B-B-L-Y, there is no direct evidence available to the Commission of price differences between the two MCCs on the domestic market. The Commission has therefore considered whether there is evidence available to demonstrate that differences in the costs to produce the two MCCs would reasonably affect price comparability.²³

Although the reinvestigation team advises that they have no direct evidence available of price differences between the two MCCs on the domestic market, it is observed that for the verified exporter, Dragon Steel, the Commission was able to conclude that ...*all domestic models had sales within OCOT...*²⁴. Dragon Steel sold H-beams (not angles like TS steel but like goods nonetheless) having both subcategory “A” and “B” for minimum yield strength. One option open to the Commission is to compare sales prices in the Taiwanese market for models with “A” and “B” minimum yield strength. In SEF 499 the Commission thought it was reasonable to use Tung Ho’s profit amount (and Tung Ho reported producing U-beams, H-beams and Channels, no angles like TS Steel:

an amount for profit based on the production and sale of like goods by Tung Ho on the domestic market in the OCOT in accordance with section 45(2) of the Regulation.²⁵

Liberty Steel sees no impediment to using the verified domestic sales price information of another seller (Dragon Steel) for a comparison of prices for like goods below and above 265MPa all sold in OCOT.

Instead, an approach inconsistent with s.269TAC(8) was applied to make adjustments on the basis of a comparison of costs:

In order to assess whether TS Steel’s prices are affected by differences in its costs to produce, the Commission has analysed the relationship between the CTM and the domestic prices of P-A-A-B-L-Y in the relevant quarters.

Presumably this “analysis” was done for the third and fourth quarter of the review period, given that:

²² Report, p. 14 at [2.3.4].

²³ Report, p. 15.

²⁴ EPR Folio No. 499/022, p. 11.

²⁵ SEF 499, p. 36

The verification team identified no sales and cost data regarding goods exported to Australia for quarters 1 and 2 and TS Steel confirmed that there was no production and sale of these goods for those quarters. [EPR499/021 at p5]

The Commission then presents the result of their analysis by means of “correlation” analysis.²⁶

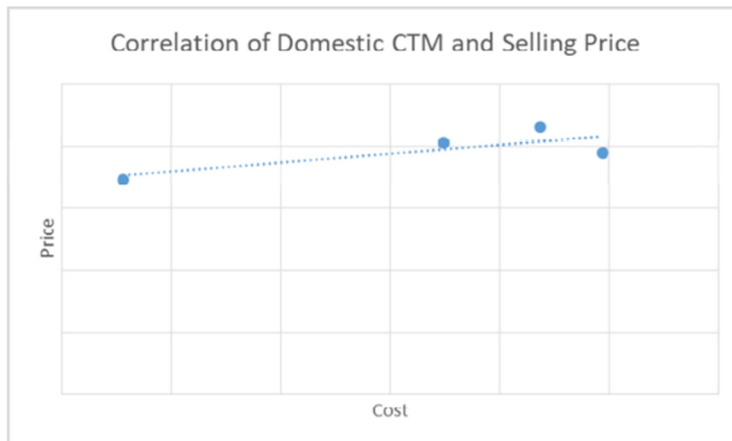


Figure 1: Comparison between the domestic weighted average CTM and domestic weighted average price for TS Steel for like goods

Based on this limited “analysis” the Commission concludes:

As can be observed from the graph above, there is a correlation between the CTM and the domestic selling price. This indicates that TS Steel sets its prices into the market by reference to movements in the cost of production.

And further:

it is reasonable to conclude that, if there were sales of the MCC P-A-B-B-L-Y in Taiwan, the price would also be set by reference to the cost of production

However, apart from the limitations of the analysis and the approach to calculating an adjustment to the normal value based on a comparison of costs being unsound at law, the adjustment the Commission proceeds to make appears to also be substantially flawed, with a gross margin added based on the lower strength model determined over the review period:

Specifically, the Commission compared the weighted average CTM of the domestically sold model P-A-A-B-L-Y and the exported model P-A-B-B-L-Y, respectively, on a quarterly basis over the review period and determined a specification adjustment amount based on the observed absolute differences. The Commission then added a weighted average gross margin of P-A-A-B-L-Y over the review period to reflect the market value of the production cost difference. The gross margin was calculated based on the weighted average percentage difference between TS Steel’s domestic net selling prices and CTM of all domestic sales of P-A-A-B-L-Y in the OCOT over the review period.

²⁶ Report, p. 16.

In addition to this approach being legally in error, it also entirely disregards the commercial premise that higher strength structural steel grades are reasonably expected to command a higher price in the market, irrespective of the cost to produce them.

In the ADRP conference held with the Commission regarding TS Steel on 18 February 2020, clarification of the goods considered “like goods” to those exported to Australia was given:

*It was noted by the ADC that there were no sales of the exported model on the domestic market in the OCOT. In terms of the sufficiency test, there was discussion as to whether there were sufficient domestic sales of the model most like the exported model. The ADC confirmed that there were sufficient volumes of the model pursuant to s.269TAC(14) of the Act.*²⁷

Therefore, it the correct or preferable approach would be for the Commission to determine a reasonable adjustment based on price comparability in the Taiwanese market of like goods having different minimum yield strength models, based on the verified data of Dragon Steel Corporation (DSC) domestic sales that were all determined to be in OCOT.²⁸

P-H-A-01	P-H-A-13	P-H-B-03	P-H-B-15
P-H-A-02	P-H-A-14	P-H-B-04	P-H-B-16
P-H-A-03	P-H-A-15	P-H-B-05	P-H-B-17
P-H-A-04	P-H-A-16	P-H-B-06	P-H-B-18
P-H-A-05	P-H-A-17	P-H-B-07	P-H-B-19
P-H-A-06	P-H-A-18	P-H-B-08	P-H-B-20
P-H-A-07	P-H-A-19	P-H-B-09	P-H-B-21
P-H-A-08	P-H-A-20	P-H-B-10	P-H-B-22
P-H-A-09	P-H-A-21	P-H-B-11	
P-H-A-10	P-H-A-22	P-H-B-12	
P-H-A-11	P-H-B-01	P-H-B-13	
P-H-A-12	P-H-B-02	P-H-B-14	

The above extract indicates that Models 1 to 22 for the given minimum yield strength subcategories ‘B’ and ‘C’ were defined by DSC as being different ...*combinations of height and width of the cross-section of H-section*... Therefore, a comparison of the ‘A’ and ‘B’ grade prices differentiated on minimum yield strength for these like goods on a model by model (1-22) basis would likely have delivered a far more reasonable approach for consideration of adjustment to TS models based on actual price comparability in the Taiwanese market.

2.3.6 Sales by TS Steel

Liberty Steel is unclear as to the relevance of the Commission’s purported “correlation” between the CTM and the domestic selling price of domestic sales.²⁹

Correlation gives a quantitative determination of the degree of relationship between two variables (in this case costs and prices), not information as to the nature of relationship between the costs and prices. Correlation should not be interpreted as causation, that a change in costs will lead to an

²⁷ Conference Summary, 18 February 2020, p. 2.

²⁸ EPR Folio No. 499/022, pp. 5 – 6.

²⁹ Report, p. 16.

equivalent change in prices unless there is sound evidence and analysis to support the statement. Causation implies an invariable sequence, that a change in costs will always lead to an equivalent change in price, whereas correlation is simply a measure of mutual association between costs and prices:

Correlation is a statistical measure (expressed as a number) that describes the size and direction of a relationship between two or more variables. A correlation between variables, however, does not automatically mean that the change in one variable is the cause of the change in the values of the other variable.

Causation indicates that one event is the result of the occurrence of the other event; i.e. there is a causal relationship between the two events. This is also referred to as cause and effect.³⁰

It would be rare not to find Correlation between costs and prices for any product but this does not imply that there is always a causal effect between a change in costs and a change in prices. There are other factors that influence prices in the market aside from costs, including supply and demand, the level of competition and supplier/customer relationships and preferences. The Commission's statement that *...this indicates that TS Steel sets its prices into the market by reference to movements in the cost of production...*³¹ is contradicted by the Commission earlier finding that *...there was an absence of domestic sales in the OCOT of goods in this MCC (P-A-B-B-L-Y).*³² That domestic sales of the identical model P-A-B-B-L-Y were not in OCOT is evidence that TS Steel does not set its prices into the market by reference to movements in the cost of production. Therefore, for the one model exported by TS Steel the Commission's findings for the one comparable domestic model is evidence that prices are not set by reference to movements in costs.

2.3.9 Adjustments to the normal value - Other adjustments

Domestic credit adjustment

The Commission has stated that it *...considers that these same adjustments under section 269TAC(8) to the normal value ascertained under section 269TAC(1) are necessary for a fair comparison to the FOB export price.*³³ By implication, this suggests that the Commission's approach with respect to a domestic credit expense adjustment for this exporter continues to be applied without modification:

*As stated in REP 499 at section 5.6.3, the adjustment to the normal value for domestic credit expenses pursuant to section 269TAC(9) is required to ensure a fair comparison of normal values to export prices. The Commission maintains that there is no requirement for the costs applied for an adjustment to reflect only those of transactions in the OCOT.*³⁴ (emphasis added)

³⁰ <https://www.abs.gov.au/websitedbs/a3121120.nsf/home/statistical+language+-+correlation+and+causation#:~:text=A%20correlation%20between%20variables%2C%20however,relationship%20between%20the%20two%20events> (accessed on 7 September 2020)

³¹ Report, p. 16.

³² Report, p. 15.

³³ Report, p. 18.

³⁴ https://www.industry.gov.au/sites/default/files/adrp/hot_rolled_structural_steel_sections_-_adrp_review_nos._120_121_-_adc_.1.pdf (accessed 7 September 2020), p. 13 at [64].

With respect Liberty Steel submits that the Commission is in error on this point. Both Australia's legislation and the *Anti-Dumping Agreement (ADA)* require that export and domestic sales be in the ordinary course of trade.

Subsection 269TAC(1) states:

...the normal value of any goods exported to Australia is the price paid or payable for like goods sold in the ordinary course of trade for home consumption in the country of export

Article 2.1 of the ADA states:

... product is to be considered as being dumped, i.e. introduced into the commerce of another country at less than its normal value, if the export price of the product exported from one country to another is less than the comparable price, in the ordinary course of trade, for the like product when destined for consumption in the exporting country. (emphasis added)

By not adjusting credit terms to reflect the credit terms for those sales in OCOT the adjusted normal value does not constitute a comparable price with one to the export price. The unadjusted credit terms as proposed by the Commission includes credit terms of sales that were found not to be in OCOT and as such the adjusted normal value is not properly comparable to the export price. Both the legislation and the ADA require that adjustments to the normal value should not affect its comparison to the export price.

Paragraph 269TAC(8)(c) states:

...are modified in different ways by taxes or the terms or circumstances of the sales to which they relate; that price paid or payable for like goods is to be taken to be such a price adjusted in accordance with directions by the Minister so that those differences would not affect its comparison with that export price. (emphasis added)

Article 2.4 of the ADA states:

A fair comparison shall be made between the export price and the normal value. This comparison shall be made at the same level of trade, normally at the ex-factory level, and in respect of sales made at as nearly as possible the same time. Due allowance shall be made in each case, on its merits, for differences which affect price comparability, including differences in conditions and terms of sale, taxation, levels of trade, quantities, physical characteristics, and any other differences which are also demonstrated to affect price comparability. (emphasis added)

Liberty Steel observes that there is no evidence as to how the credit terms have affected price comparability. The exporter verification report notes that TS Steel did not request an adjustment for credit terms in its response and there is no mention in the report of TS Steel providing such evidence.

2.4 Tung Ho

2.4.2 ADRP reinvestigation request

The ADRP has requested that the Commissioner reinvestigate the findings in REP 499, in particular, the finding as to the normal value determined for Tung Ho given there were sales of like goods that

may have enabled the normal value to be determined pursuant to section 269TAC(1) with section 269TAC(8) adjustments.

The Commission reports that:

*Tung Ho sold like goods in 29 MCCs during the review period, of which four have been exported to Australia.*³⁵

Based on this statement, it suggests there were plenty of domestic like goods sales to enable normal value calculation pursuant to section 269TAC(1) with section 269TAC(8) adjustments on the basis of price comparability. Once again, in the absence of a direct identical match on MCCs for all but one of the four exported models, this approach has been abandoned by the Commission in favour of a cost analysis applying CTM for three surrogate models selected from the 29 domestic MCCs:

As Tung Ho only had sufficient domestic sales in the OCOT for one of the exported MCCs, the Commission does not have appropriate evidence for examining the price differences between each of the exported MCCs on the domestic market. Therefore, the Commission has considered whether there is evidence available to demonstrate that differences in the costs to produce the two MCCs would reasonably affect price comparability.

There is no consideration by the Commission of the price differences between the other additional MCCs not exported or considered a surrogate in order to establish price comparability for like goods in the domestic market as a potential basis for adjustment. Only sufficient sales of a direct model match in OCOT have been pursued as suitable for any price comparability consideration. This has unreasonably fettered the Commissioner's ability to make the correct or preferable recommendation to the Minister.

The Commission proceeds to analyse *...the relationship between the CTM and prices for all models sold in the domestic market in the relevant quarters...*³⁶ by constructing a correlation graph. Given the MCC structure would not typically be used by a manufacturer for cost reporting purposes, the Commission places a high degree of confidence in the validity of the CTM data presented by the exporter for each of the 29 domestic MCCs sold domestically and used in this 'cost versus price' analysis. It is noted that there is a two-page redacted response in Tung Ho's Exporter Questionnaire Response (EQR) to the question, "[t]o what level of product specificity (models, grades etc.) does your company's cost accounting system normally record production costs"³⁷ and when asked to "Provide details on how you mapped the product or SKU codes to the MCC for the purpose of completing this questionnaire", the response from Tung Ho was: "We don't' mapped the product codes to the MCC, we just fill in the corresponded code for MCC" (sic)³⁸

Based on a correlation plot between costs for all models and the selling prices, the Commission concludes *...there is a strong correlation between the CTM and the selling price. This indicates that Tung Ho sets its prices into the market by reference to movements in the cost of production... and ...it is*

³⁵ Report, p. 19.

³⁶ Report, p. 22.

³⁷ EPR Folio No. 499/007, p. 52.

³⁸ EPR Folio No. 499/007, p. 30.

reasonable to conclude that, if there were reasonable volumes of sales of particular models in Taiwan, the prices of those models would also be set by reference to the cost of production...³⁹.

Liberty Steel strongly objects to these conclusions reached by the Commission. On a macro basis over time, commodity product prices tend to move relative to raw material prices which affect costs. However, on a model by model basis, there are many factors besides CTM that affect the price that a producer is able to achieve, most notably supply and demand and the price of competitive alternatives (e.g. imported and potentially dumped steel) available in the market. For example, if certain models are not commonly imported into the domestic market and readily available at a lower price to customers, the producer may be able to achieve a higher price for that model, irrespective of the CTM.

Another key factor in pricing is the value customers place on certain properties that a product will deliver. For structural sections, used for structural support in buildings, the mechanical properties and minimum yield strength in particular is an important consideration for customers, as such grades are commonly designated based on minimum yield strength to facilitate ease of selection. If model A (a higher strength product) costs less to make than model B (a lower strength product), but because of higher strength being the factor valued by customers for structure integrity i.e. can withstand more load before deforming, it is very likely that the producer can achieve a higher price (and a higher profit) for model A.

Nonetheless, the Commission proceeds to make adjustments based on CTM of the surrogate models:

In this case, the Commission considers that using the difference in CTM between the domestically sold surrogate models and each of their respective exported MCCs P-C-B-----5-2-, P-H-B-----3-2- and P-I-B-----1-2-, plus the addition of the gross margin to reflect the market value of the production cost difference, is the most suitable for the following reasons:

- *for models sold on the domestic market, there is a strong correlation between price and cost;*
- *the domestic and export cost data provided by Tung Ho was relevant and reliable; and*
- *the difference between the cost of the domestic and export models is able to be meaningfully quantified and applied as an adjustment pursuant to section 269TAC(8).⁴⁰*

Further,

The gross margin was calculated based on the weighted average percentage difference between Tung Ho's domestic net selling prices and CTM of all domestic sales in the OCOT over the review period.

Based on this analysis, the revised dumping margin determined for Tung Ho was (negative) -5.8% (down further from REP 499 margin at (negative) -1.6%).

³⁹ Report, pp. 22-23.

⁴⁰ Report, pp. 23-24.

Liberty Steel provides some comments regarding the MCCs reportedly sold on the domestic market and exported to Australia by Tung Ho. The matrix below shows the MCCs considered by the Commission:

		Prime	Non-Prime	Shape				Min yield strength (Mpa)		Dimension (mm)								Weldability				
				UB 'I'	UC 'H'	Channels	Angles	<265	>=265	UB Narrow Flange W<230	UB Wide Flange W>=230	UC Narrow Flange W<360	UC Narrow Flange W>=360	Channel Standard	Channel Heavy	Tapered Flange Beam	Running Rail for MTR	Carbon Steel for General Structure	Carbon Steel for Welded Structure	Alloy Steel for Welded Structure	Carbon Steel for Building Structure	Alloy steel for Building Structure
		P	N	I	H	C	A	A	B	1	2	3	4	5	6	7	8	2	4	5	6	7
P-C-A-----5-2	1	X				X		X						X				X				
P-C-A-----6-2	2	X				X		X							X			X				
P-C-B-----5-2	3	X				X			X					X				X				
P-C-B-----5-5	4	X				X			X					X						X		
P-H-A-----3-2	5	X			X			X				X						X				
P-H-A-----3-4	6	X			X			X				X							X			
P-H-A-----3-6	7	X			X			X				X									X	
P-H-A-----4-2	8	X			X			X					X					X				
P-H-A-----4-4	9	X			X			X					X						X			
P-H-A-----4-6	10	X			X			X					X								X	
P-H-B-----3-2	11	X			X				X			X						X				
P-H-B-----3-5	12	X			X				X			X								X		
P-H-B-----3-7	13	X			X				X			X										X
P-H-B-----4-5	14	X			X				X				X						X			
P-H-B-----4-7	15	X			X				X				X									X
P-I-A-----1-2	16	X		X				X		X								X				
P-I-A-----1-4	17	X		X				X		X									X			
P-I-A-----1-6	18	X		X				X		X											X	
P-I-A-----2-2	19	X		X				X			X							X				
P-I-A-----2-4	20	X		X				X			X								X			
P-I-A-----2-6	21	X		X				X			X										X	
P-I-A-----7-2	22	X		X				X								X		X				
P-I-B-----1-2	23	X		X					X	X								X				
P-I-B-----1-5	24	X		X					X	X										X		
P-I-B-----1-7	25	X		X					X	X												X
P-I-B-----2-5	26	X		X					X		X								X			
P-I-B-----2-7	27	X		X					X		X											X
P-I-B-----7-2	28	X		X					X							X		X				
P-I-B-----7-5	29	X		X					X							X			X			

- Model number 7 (P-H-A-----3-6) is the single exported model for which the Commission found sufficient domestic sales in OCOT for a s.269TAC(1) normal value calculation and adjustments based on price comparability. Notably it has a minimum yield strength indicated as subcategory 'A' meaning <265MPa minimum yield strength.
 - Tung Ho reported the following products exported to Australia in their EQR:

The goods that THS have exported to Australia during the investigation period are Universal beams, Universal Columns, and Parallel Flange Channels with Grade 300 accordance with AS/NZS 3679.1:2016, and JIS size Universal beams with Grade 300 accordance with AS/NZS 3679.1:2016, and BSEN size Universal column with JIS G 3136 SN400B steel grade.

The vast majority of goods likely to have been exported to Australia (given Building Code requirements) would be goods complying with AS/NZS 3679.1:2016 Grade 300 that has a minimum yield strength of between 280 and 320MPa (depending on the thickness). These goods should all have been classified as subcategory 'B' for minimum yield strength.

This means that the only export model subject to 269TAC(1) normal value calculation is a (likely) small volume of steel made to Japanese Standard JIS G3136 SN400B grade.

- The other three models exported to Australia (presumably made to AS/NZS3679.1:2016) have been erroneously classified by Tung Ho and accepted by the Commission as “Carbon Steel for General Structure” rather than “Carbon Steel for Welded Structure” despite Liberty Steel’s representations through Review 499 on this issue. There is no Australia/New Zealand Standard for “General Structure”, only a single Standard with all grades specified to be suitable for welding. Relevant extract provided below:

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

- There were almost equal amounts of domestic models having minimum yield strength designated to subcategory “A” (15 in total) and “B” (14 in total). With respect to physical difference specification adjustment to normal value, the Commission states:

*The MCC structure for Tung Ho acknowledges the differences in selling prices as a result of physical differences in the shape, minimum yield strength, form (which incorporates differences in width), and grade (which incorporates weldability) of HRS. These differences form the second, third, fourth and fifth MCC categories respectively in Tung Ho’s MCC listing.*⁴¹

In the absence of an identical domestic sales match with sufficient sales in OCOT to the export MCC, an approach open to the Commission would be to consider whether differences in these physical characteristics were driving pricing differences. As a starting point a comparison of MCCs with minimum yield strength ‘A’ compared to ‘B’ may have provided some confidence that higher strength grades generally price at a higher price point. The Commission might then have further considered whether different shapes or weldability considerations (noting Liberty Steel’s previous comment with respect to incorrect classification of AS/NZS3679 goods by Tung Ho as ‘not for welding’) within a given strength subcategory influenced pricing.

These factors are far more likely to drive pricing for HRS in the Taiwanese domestic market, along with the supply and demand and availability of alternative supply mentioned previously, than the cost to

⁴¹ EPR Folio No. 499/072, p. 19.

make. As such they should be considered before abandoning price comparability as the basis for adjustments in favour of costs.

2.4.6 Sales by Tung Ho

In response to the Commission's statement that *...there is a strong correlation between the CTM and the selling price...* and that *...[t]his indicates that Tung Ho sets its prices into the market by reference to movements in the cost of production...*,⁴² Liberty Steel again repeats its argument (at section 2.3.6, above) that correlation does not equal causation, and that insufficient volumes in OCOT evidences no causal relationship between costs and prices. In fact, evidence before the Commission, in the form of Tung Ho's Annual Report⁴³ notes that factors other than costs affect the market:

Facing the rise of international steel trade protectionism in the international market, Taiwan's steel industry is bound to face more severe competition and challenges, and companies must strengthen their own global competition ... Not only have international markets for steel products been subject to shrinkage, but the Taiwan market has also had to face the harsh threat of international low priced steel product dumping. [at p. 5]

Due to the fierce competition in the steel industry, the company has consistently adhered to the goal of improving product quality to maintain competition. [at p. 18]

(Inventory) Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and selling expenses. Any changes of competitors' reactions and market condition would impact the estimation which is based on the current market condition and past experience. [at p. 32]

(Financial assets) If the quoted prices in active markets are available, the market price is established as the fair value. However, if quoted prices in active markets are not available, the estimated valuation or prices used by competitors are adopted. [at p. 60]

3.3 Reinvestigation: will dumping and material injury continue or recur?

TS Steel

The Commission has analysed the spare capacity available to TS Steel and found that their total available capacity in the inquiry period was less than one per cent of the overall Australian market during the inquiry period. The Commission also notes that the Australian industry was unable to supply the entire market, and was itself required to import small volumes of HRS to meet the demand in the Australian market from time to time. With respect, this is an unremarkable conclusion as there is no expectation that a domestic industry will or should have the capacity to supply the entire domestic market.

However, the Commission has established that, immediately following the imposition of the measures on TS Steel, the FOB export price of HRS increased in 2015 and fell significantly in 2016 before

⁴² Report, p. 22.

⁴³ EPR Folio No. 499/061 (Non-Confidential Attachment 1).

recovering in 2017. The Commission notes that trends in FOB export prices by TS Steel from Taiwan are in line with the trends of all exporters of HRS to Australia, with exports from TS Steel at higher prices than other exporters subject to the measures in most periods. Liberty Steel notes that the only HRS shape that TS Steel appears to produce and sell into domestic and export markets is angles, no H-Beams or I-Beams or Channels which may explain the difference in pricing. The question here which remains unresolved is which models TS Steel is exporting, and does this permit the price analysis the Commission is seeking to perform?

The Commission observed:

...that the weighted average selling price of the goods exported to Australia by TS Steel is significantly lower than that of the Australian industry for each quarter of the inquiry period for the same MCC. This analysis indicates that, in a period where the goods were exported at undumped prices, HRS exported to Australia from Taiwan by TS Steel already has a significant price advantage over the Australian industry. The Commission does note that the Australian industry adds a price premium on top of the IPP price, however, in all months of the inquiry period, the price advantage significantly exceeds the price premium.⁴⁴

However, having excluded Liberty Steel's prices to its related, and usually largest customers, the Commission has in effect excluded all but the [REDACTED] prices in the market – [REDACTED]. This demonstrates a flawed and prejudicial analysis by the Commission. This approach may be compared to that previously applied by the Commission in the original *Dumping Investigation No. 223*:

Price undercutting was also considered in the context of customers purchasing similar goods from both OneSteel and from importers. Selling prices by OneSteel to its largest volume customers were compared to selling prices from importers, for which verified data was obtained on a model-by-model basis. The analysis took into account grade, shape and level of trade, however credit terms were not adjusted for the purposes of comparison. It was observed that in all cases, the weighted average selling price for an identical grade and shape was lower for imported HRS than for Australian produced HRS, at a margin greater than the IPP premium (discussed above at 9.5.1) to the same customer.⁴⁵ (emphasis added)

On what basis has the Commission departed from the approach taken in INV 223? WTO jurisprudence supports the view that the determination of injury in an expiry/sunset review should apply the same methods and approaches as applied in the original investigation. For example, the report of the Panel of the Dispute Settlement Body in *US – Oil Country Tubular Goods Sunset Reviews* concluded that, to the extent that an investigating authority relies on a determination of injury when conducting a sunset review, the obligations of Article 3 would apply to that determination:

If, however, an investigating authority decides to conduct an injury determination in a sunset review, or if it uses a past injury determination as part of its sunset determination, it is under the obligation to make sure that its injury determination or the past injury determination it is using conforms to the relevant provisions of Article 3. For instance, Article 11.3 does not

⁴⁴ Report, p. 36.

⁴⁵ REP 223, p. 75.

mention whether an investigating authority is required to calculate the price effect of future dumped imports on the prices of the domestic industry. In our view, this means that an investigating authority is not necessarily required to carry out that calculation in a sunset review.

However, if the investigating authority decides to do such a calculation, then it would be bound by the relevant provisions of Article 3 of the Agreement. Similarly, if, in its sunset injury determinations, an investigating authority uses a price effect calculation made in the original investigation or in the intervening reviews, it has to assure the consistency of that calculation with the existing provisions of Article 3.⁴⁶ (emphasis added)

Liberty Steel is confused by the following statement by the Commission, especially in the context of a Continuation inquiry:

*The Commission considers that exports of HRS from Taiwan by TS Steel have had little to no impact on the pricing of the Australian industry. Given these facts, there is no apparent economic incentive for TS Steel to lower its pricing and recommence dumping should the measures be allowed to expire in respect of its exports of HRS.*⁴⁷ (emphasis added)

Presumably, this is the purpose of the measures, to not “impact” Australian industry pricing. This is not a justification for the expiration for the measures, but rather their extension.

As to the question of recurrence, we refer to the Commission’s conclusions in REP 505:

The Commission has conducted further detailed analysis of TS Steel’s verified export sales data and has found that the correlation between TS Steel’s export price and export quantity is strong. That is, where export prices decrease, TS Steel’s export volumes increase. The Commission has also found that TS Steel’s export prices remained stable and did not correlate with increases in normal values over the inquiry period.

The Commission considers that it is reasonable to expect TS Steel to aim to maintain its pattern of growth in export volumes. The Commission considers that in order to do so in a price sensitive market such as the Australian HRS market, TS Steel would be required to reduce or maintain its export prices at levels that maintain its competitiveness relative to other imports.

The Commission has found in Review 499 that over the review period there is a small differential between TS Steel’s export price and normal value. As such, a small reduction in export prices relative to TS Steel’s domestic prices would result in dumping.

In these circumstances, and with respect to the evidence that TS Steel has previously been found to export HRS to Australia at dumped prices, the Commission considers that it is likely that exports of HRS at dumped prices by TS Steel would recur if the measures expire.

The Commission has found that TS Steel did not export HRS from Taiwan at dumped prices over the inquiry period. However, as described at section 7.2.3 of this report, the Commission considers that if the measures expire, dumping by TS Steel is likely to recur. The Commission also considers that:

⁴⁶ Panel Report, *United States — Sunset Reviews of Anti-Dumping Measures on Oil Country Tubular Goods from Argentina*, WT/DS268/R, (adopted on 17 December 2004), p. 67 at [7.274].

⁴⁷ Report, p. 37.

- the increasing volumes of HRS from Taiwan;
- the high degree of price elasticity in the Australian HRS market; and
- the import price competition to which Liberty Steel is subject would likely result in Liberty Steel achieving reduced selling prices should the antidumping measures on TS Steel expire.

Consequently, price suppression and the resulting impact on revenue and profits is likely to continue if the measures on HRS exported to Australia from Taiwan by TS Steel expire.

Liberty Steel asserts that TS Steel has capacity to increase export volumes to [REDACTED] tonnes, price elasticity and competition would see TS Steel reduce its price to secure those volumes. This assessment is based on the Commission's statement that available capacity for TS Steel was less than one percent of the Australian market⁴⁸. Liberty Steel estimated the Australian market for calendar year 2018 at [REDACTED] tonnes⁴⁹.

As a conservative estimate, Liberty Steel notes that whilst TS Steel's export volumes have increased during the inquiry period to levels similar to those found in the original investigation they are still well below the levels exported in 2010 (by an estimated 60%) as shown in Figure 8 on page 35 of the *Preliminary Investigation Report*.

Liberty Steel further observes that TS Steel will face the same challenges of severe price competition in shrinking international markets with low prices in domestic markets as noted by Tung Ho in its annual report. These shrinking international markets will free up more capacity for TS Steel to export increased volumes to Australia that will become an attractive destination without dumping measures in place.

As TS Steel increases its offers and volumes in the market it will be a more significant player in the market affecting IPP and causing material injury. For the reasons outlined above, we do not consider the negative dumping margin the correct or preferable decision, and we expect that correctly determined TS Steel's margin will be non-*de minimis*. In any event, even if a *de minimis* margin for TS Steel persists for the inquiry period, we consider the correct test for the Commission to apply is stated in the Panel of the Dispute Settlement Body in *US – Dynamic Random Access Memory Semiconductors (DRAMs) from Korea* on the question of recurrence:

A review of "whether the injury would be likely to continue or recur if the duty were removed or varied" could include a review of whether (1) injury that is (2) caused by dumped imports ^[original fn 501] would be likely to continue or recur if the duty were removed or varied. With regard to injury, **we believe that an absence of dumping during the preceding three years and six months is not in and of itself indicative of the likely state of the relevant domestic industry if the duty were removed or varied.** With regard to causality, **an absence of dumping during the preceding three years and six months is not in and of itself indicative of causal factors other than the absence of dumping.** If the only causal factor under consideration is three years and six months' no dumping, **the issue of causality becomes whether injury caused by dumped imports will recur. This necessarily requires a determination of whether dumping will recur.**

⁴⁸ Report, p. 35.

⁴⁹ Conf Att 3 Provided to the Commission on 28 May 2019.

Thus, the "injury" review that Korea believes is "warranted" on the basis of three years and six months' no dumping would be entirely dependent upon a determination of whether dumping will recur. This is precisely the type of determination that the United States sought to make in the present case. The mere fact of three years and six months' findings of no dumping does not require the investigating authority to, in addition, self-initiate a review of "whether the injury would be likely to continue or recur if the duty were removed or varied".⁵⁰

FOR AND ON BEHALF OF

THE AUSTRALIAN INDUSTRY

⁵⁰ Panel Report, *United States - Anti-Dumping Duty on Dynamic Random Access Memory Semiconductors (DRAMs) of One Megabyte or Above from Korea*, WT/DS99/R (adopted 19 March 1999), p. 144 at [6.59].

ABS Steels

ABS Steels are types of structural steel which are standardized by the American Bureau of Shipping for use in shipbuilding.^[1]

ABS steels come many grades in *ordinary-strength* and two levels of *higher-strength* specifications.

All of these steels have been engineered to be optimal long-lived shipbuilding steels. ABS does permit the use of other steels in shipbuilding, but discourages it, and requires more detailed engineering analysis.

Contents

Basic properties

Ordinary-Strength

Higher-Strength

References

Basic properties

All ABS steels are standard carbon steels. As with other grades of steel, they have a specific gravity of 7.8.-

Ordinary-Strength

Ordinary-strength ABS shipbuilding steel comes in a number of grades, **A**, **B**, **D**, **E**, **DS**, and **CS**. On certified steels, the plates are marked with the grade and a preceding "**AB**", e.g. **AB/A** etc.^[2]

Yield point for all ordinary-strength ABS steels is specified as 34,000 psi (235 MPa), except for ABS A in thicknesses of greater than 1 inch (25 mm) which has yield strength of 32,000 psi (225 MPa), and cold flange rolled sections, which have yield strength of 30,000 psi (205 MPa).

Ultimate tensile strength of ordinary strength alloys is 58,000 - 71,000 psi (400-490 MPa), except for ABS A shapes and bars with 58,000 - 80,000 psi (400-550 MPa), and cold flanged sections with 55,000 - 65,000 psi (380-450 MPa).

The various grades have slightly differing alloy chemical ingredients, and differing fracture toughness.

Higher-Strength

Higher-strength ABS shipbuilding steel comes in six grades of two strengths, **AH32**, **DH32**, **EH32**, **AH36**, **DH36**, and **EH36**.^[2]

The **32** grades have yield strength of 45,500 psi (315 MPa), and ultimate tensile strength of 64,000 - 85,000 psi (440-590 MPa).

The **36** grades have yield strength of 51,000 psi (355 MPa), and ultimate tensile strength of 71,000 - 90,000 psi (490-620 MPa).

Per Steel Vessel Rules Part 2 Chapter 1 Section 3 Table 2 (pg 36).

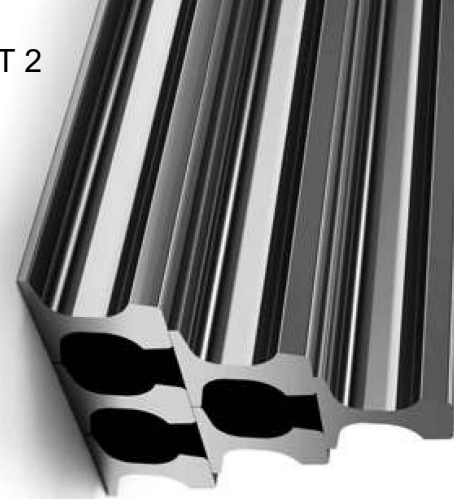
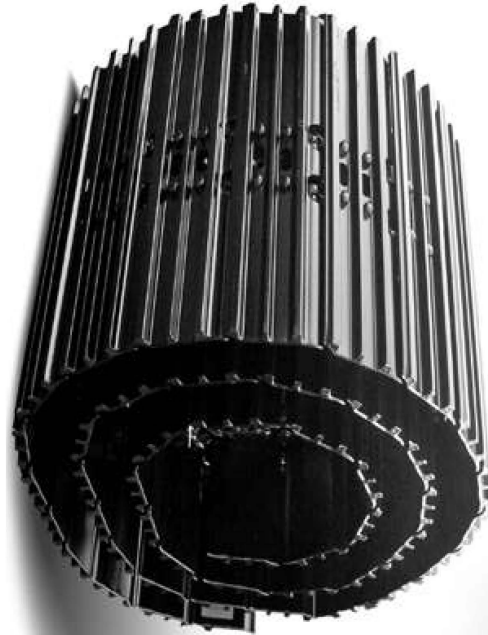
References

1. **Rules for Building and Classing Steel Vessels**, American Bureau of Shipping, 1990
 2. **Steel Vessel Rules 2010, Part 2 - Materials and Welding** (<http://www.eagle.org/eagleExternalPortalWEB/ShowProperty/BEA%20Repository/Rules&Guides/LinkedGeneralGuideTitles/Current/Part2RulesforMaterialsandWelding>), American Bureau of Shipping, 2010, Chapter 1, Sections 2 and 3
-

Retrieved from "https://en.wikipedia.org/w/index.php?title=ABS_Steels&oldid=879732597"

This page was last edited on 23 January 2019, at 01:28 (UTC).

Text is available under the Creative Commons Attribution-ShareAlike License; additional terms may apply. By using this site, you agree to the Terms of Use and Privacy Policy. Wikipedia® is a registered trademark of the Wikimedia Foundation, Inc., a non-profit organization.



Product Guide

현대제철 종합 제품소개 | PART 2

1) Rolled Steel for General Structure 일반구조용 강재

규격 Standard	종류의 기호 Symbol of Grade	인장시험 Tensile Test				연산율 Elongation
		항복점 또는 내력 (Min.) Yield Point or Yield Strength (N/mm ²)		인장강도 Tensile Strength (N/mm ²)	두께 Thickness (mm)	
		두께 Thickness (mm)				
		t ≤ 16	16 < t ≤ 40	40 < t		
KS D 3503	SS275 (구SS400)	275	265	245	410~550	Steel Plate and Sheets, Steel Strip in Coil, Flat and Section t ≤ 5
						Steel Plate and Sheets, Steel Strip in Coil, Flat and Section 5 < t ≤ 16
						Steel Plate and Sheets, Steel Strip in Coil, Flat and Section 16 < t ≤ 40
						Steel Plate and Sheets, Flat and Section 40 < t
	SS315 (구SS490)	315	305	295	490~630	Steel Plate and Sheets, Steel Strip in Coil, Flat and Section t ≤ 5
						Steel Plate and Sheets, Steel Strip in Coil, Flat and Section 5 < t ≤ 16
						Steel Plate and Sheets, Steel Strip in Coil, Flat and Section 16 < t ≤ 40
						Steel Plate and Sheets, Flat and Section 40 < t
	SS410 (구SS540)	410	400	—	540 이상	Steel Plate and Sheets, Steel Strip in Coil, Flat and Section t ≤ 5
						Steel Plate and Sheets, Steel Strip in Coil, Flat and Section 5 < t ≤ 16
						Steel Plate and Sheets, Steel Strip in Coil, Flat and Section 16 < t ≤ 40
	SS450	450	440	—	590 이상	Steel Plate and Sheets, Steel Strip in Coil, Flat and Section t ≤ 5
						Steel Plate and Sheets, Steel Strip in Coil, Flat and Section 5 < t ≤ 16
						Steel Plate and Sheets, Steel Strip in Coil, Flat and Section 16 < t ≤ 40

연산율 Elongation		굽힘시험 Bend Test			종류의 기호 Symbol of Grade
		굽힘각도 Angle of Bending	안쪽반지름 Inside Radius	시험편 Test Piece	
인장 시험편 Test Piece	Min. (%)				
No. 5	21	180°	1.5 x Thickness	No. 1A	SS275 (구SS400)
No. 1A	18				
No. 1A	21				
No. 4	23				
No. 5	19	180°	2.0 x Thickness	No. 1A	SS315 (구SS490)
No. 1A	16				
No. 1A	19				
No. 4	21				
No. 5	16	180°	2.0 x Thickness	No. 1A	SS410 (구SS540)
No. 1A	14				
No. 1A	17				
No. 5	14	180°	2.0 x Thickness	No. 1A	SS450
No. 1A	12				
No. 1A	15				

2) Rolled Steel for Welded Structure 용접구조용 강재

규격 Standard	종류의 기호 Symbol of Grade	인장시험 Tensile Test					연신율 Elongation
		항복점 또는 내력 (Min.) Yield Point or Yield Strength (N/mm ²)				인장강도 Tensile Strength (N/mm ²)	
		두께 Thickness (mm)				두께 Thickness (mm)	
		t ≤ 16	16 < t ≤ 40	40 < t ≤ 75	75 < t	t ≤ 100	두께 Thickness (mm)
KS D 3515	SM 275A SM 275B SM 275C SM 275D (구SM 400)	275	265	255	245	400~510	t ≤ 5 5 < t ≤ 16 16 < t ≤ 40 40 < t
	SM 355A SM 355B SM 355C SM 355D (구SM 490)	355	345	335	325	490~610	t ≤ 5 5 < t ≤ 16 16 < t ≤ 40 40 < t
	SM 420A SM 420B SM 420C SM 420D (구SM 520)	420	410	400	390	490~610	t ≤ 5 5 < t ≤ 16 16 < t ≤ 40 40 < t
	SM 460B SM 460C (구SM 570)	460	450	430	420	520~720	t ≤ 16 16 < t ≤ 40 40 < t

3) Hot Rolled Steel Sections for Building Structure 건축구조용 열간압연 형강

규격 Standard	종류의 기호 Symbol of Grade	인장시험 Tensile Test		
		항복점 또는 내력 Yield Point or Yield Strength (N/mm ²)	인장강도 Tensile Strength (N/mm ²)	항복비 Yield Ratio Max. (%)
KS D 3866	SHN 275 (구SHN 400)	275~395	410~520	85
	SHN 355 (구SHN 490)	355~475	490~610	85
	SHN 420 (구SHN 520)	420~540	520~640	85
	SHN 460 (구SHN 570)	460	570~720	85

연신율 Elongation		충격시험 Impact Test			종류의 기호 Symbol of Grade
		시험온도 Test Temp. (°C)	샤르피 흡수에너지 Charpy Absorbed Energy (Joule)	시험편 Test Piece	
시험편 Test Piece	Min. (%)				
No. 5 No. 1A No. 1A No. 4	23 18 22 24	20 0 -20 -40	27 min 27 min 27 min 27 min	V-notch in rolled direction	SM 275A SM 275B SM 275C SM 275D (구SM 400)
No. 5 No. 1A No. 1A No. 4	22 17 19 23	20 0 -20 -40	27 min 27 min 27 min 27 min	V-notch in rolled direction	SM 355A SM 355B SM 355C SM 355D (구SM 490)
No. 5 No. 1A No. 1A No. 4	19 15 19 21	20 0 -20 -40	27 min 27 min 27 min 27 min	V-notch in rolled direction	SM 420A SM 420B SM 420C SM 420D (구SM 520)
No. 5 No. 1A No. 4	19 17 20	0 -20	47 min 27 min	V-notch in rolled direction	SM 460B SM 460C (구SM 570)

연신율 Elongation			충격시험 Impact Test		종류의 기호 Symbol of Grade
			시험온도 Test Temp. (°C)	샤르피 흡수에너지 Charpy Absorbed Energy (Joule)	
두께 Thickness (mm)	시험편 Test Piece	Min. (%)			
t ≤ 40 40 < t	No. 1A No. 4	21 24	0	27 min	SHN 275 (구SHN 400)
t ≤ 40 40 < t	No. 1A No. 4	21 23	0	27 min	SHN 355 (구SHN 490)
t ≤ 40 40 < t	No. 1A No. 4	19 22	-5	47 min	SHN 420 (구SHN 520)
t ≤ 40 40 < t	No. 1A No. 4	17 20	-5	47 min	SHN 460 (구SHN 570)

4) Rolled Steel for Building Structure 건축구조용 압연강재(신KS 형강 제외)

규격 Standard	종류의 기호 Grade	인장시험 Tensile Test					
		항복점 또는 내력 (Min.) Yield Point or Yield Strength (N/mm ²)				인장강도 Tensile Strength (N/mm ²)	항복비 Yield Ratio Max. (%)
		두께 Thickness (mm)					
		6 ≤ t < 12	12 ≤ t < 16	16	16 < t ≤ 40	t ≤ 100	
KS D 3861 JIS G 3136	SN400A	235	235	235	235	400~510	-
	SN400B	235	235~355	235~355	235~355	400~510	80
	SN400C	-	-	235~355	235~355	400~510	80
	SN490B	325	325~445	325~445	325~445	490~610	80
	SN490C	-	-	325~445	325~445	490~610	80

연신율 Elongation Min. (%)			충격시험 Impact Test			종류의 기호 Grade
			시험온도 Test Temp. (℃)	샤르피 흡수에너지 Charpy Absorbed Energy (Joule)	시험편 Test Piece	
시험편 Test Piece	두께 Thickness (mm)					
	6 ≤ t ≤ 16	16 < t ≤ 50				
No. 1A	17	21	-	-	V-notch in rolled direction	SN400A
No. 1A	18	22	0	27 min.	V-notch in rolled direction	SN400B
No. 1A	18	22	0	27 min.	V-notch in rolled direction	SN400C
No. 1A	17	21	0	27 min.	V-notch in rolled direction	SN490B
No. 1A	17	21	0	27 min.	V-notch in rolled direction	SN490C

5) EN10025-2:2004 강재

규격 Standard	종류의 기호 Grade	인장시험 Tensile Test		
		두께 Thickness (mm)	인장강도 Tensile Strength (N/mm ²)	항복점 또는 내력 Yield Point or Yield Strength (N/mm ²)
EN10025-2:2004	S235JR	t ≤ 16 16 < t ≤ 40 40 < t ≤ 63	360~510	235 225 215
	S235J0	t ≤ 16 16 < t ≤ 40 40 < t ≤ 63	360~510	235 225 215
	S235J2	t ≤ 16 16 < t ≤ 40 40 < t ≤ 63	360~510	235 225 215
	S275JR	t ≤ 16 16 < t ≤ 40 40 < t ≤ 63	410~560	275 265 255
	S275J0	t ≤ 16 16 < t ≤ 40 40 < t ≤ 63	410~560	275 265 255
	S275J2	t ≤ 16 16 < t ≤ 40 40 < t ≤ 63	410~560	275 265 255
	S355JR	t ≤ 16 16 < t ≤ 40 40 < t ≤ 63	470~630	355 345 335
	S355J0	t ≤ 16 16 < t ≤ 40 40 < t ≤ 63	470~630	355 345 335
	S355J2	t ≤ 16 16 < t ≤ 40 40 < t ≤ 63	470~630	355 345 335
	S355K2	t ≤ 16 16 < t ≤ 40 40 < t ≤ 63	470~630	355 345 335
	S450J0	t ≤ 16 16 < t ≤ 40 40 < t ≤ 63	550~720	450 430 410

연신율 Elongation Min. (%)	충격시험 Impact Test		종류의 기호 Grade
	시험온도 Test Temp. (°C)	샤르피 흡수에너지 Charpy Absorbed Energy (Joule)	
26 26 25	20	27 min.	S235JR
26 26 25	0	27 min.	S235J0
24 24 23	-20	27 min.	S235J2
23 23 22	20	27 min.	S275JR
23 23 22	0	27 min.	S275J0
21 21 20	-20	27 min.	S275J2
22 22 21	20	27 min.	S355JR
22 22 21	0	27 min.	S355J0
22 22 21	-20	27 min.	S355J2
20 20 19	-20 (-30)	40 min. (27 min.)	S355K2
17 17 17	0	27 min.	S450J0

7) ASTM 강재

종류의 기호 Grade	인장시험 Tensile Test		
	항복점 또는 내력 Yield Point or Yield Strength (N/mm ²)	인장강도 Tensile Strength (N/mm ²)	연신율 Elongation Min, (%)
ASTM A36	250 Min.	400~550	20
G50 (G345) G60	345 Min. 415 Min.	450 Min. 520 Min.	18 16
ASTM A992	345~450	450 Min.	19
ASTM A572 G50/A992 /CSA345WM (TRIPLE)	345~450	450~650	19

8) AS/NZS 3679.1:2010 강재

종류의 기호 Grade	인장시험 Tensile Test			
	두께 Thickness (mm)	항복점 또는 내력 Yield Point or Yield Strength (N/mm ²)	인장강도 Tensile Strength (N/mm ²)	연신율 Elongation Min, (%)
300	t < 11 11 ≤ t ≤ 17 17 < t < 40	320 Min. 300 Min. 280 Min.	440 Min.	22
300 S0	t < 11 11 ≤ t ≤ 17 17 < t < 40	320~426(상항복점) 300~399(상항복점) 280~372(상항복점)	440 Min.	25

9) Sheet Pile 강널말뚝

규격 Standard	종류의 기호 Grade	인장강도 Tensile Strength Min. (N/mm ²)	항복점 Yield Point Min. (N/mm ²)	연신율 Elongation Min. (%)
KS F 4604	SY300	500	300	17
	SY400	550	400	15
	SY300W	500	300	17
	SY400W	550	400	15
JIS A 5528	SY295	450	295	18
	SY390	490	390	16
JIS A 5523	SYW295	450	295	18
	SYW390	490	390	16
	SYW430	510	430	14
EN 10248-1	S270GP	410	270	24

10) The Others 기타 강재

명칭 Designation	종류의 기호 Grade	인장강도 Tensile Strength Min. (N/mm ²)	항복점 Yield Point Min. (N/mm ²)	연신율 Elongation Min, (%)	경도 Hardness
철도레일 Railway Rail	30A, 37A	690	-	9	-
	50PS	710	-	8	-
	40N, 50N, 60	800	-	10	HB 235 Min.
	UIC 60	880	-	10	HB 260~300
열처리레일 Head Hardened Rail	HH 340	1,080	-	8	표면경도 HSC: 47~53 심부경도 HB311 Min.
	HH 370	1,130	-	8	표면경도 HSC: 49~56 심부경도 HB331 Min.
광산지보용 I형강 I Beam for Mine Support	SG-1	490	-	20	-
H형강 말뚝 Steel H Pile	SHP 275	410~550	275	17	t ≤ 16 -
			265	21	16 < t -
			265	22	16 < t -
	SHP 275W	410~550	275	18	t ≤ 16 -
			265	22	16 < t -
	SHP 355W	490~630	355	17	t ≤ 16 -
			345	21	16 < t -
	SHP 450W	550~700	450	17	t ≤ 16 -
			440	17	16 < t -

Certified Product of Register Shipping (Steel Shapes)

선급협회 제조승인 품목(형강)

구분 Section	공장 Site	허가번호 Certif. No.	허가일자 Approval Date
한국 선급협회 (KR)	Incheon	INC00396-SP001	2017. 04. 25
		INC00396-QA001	2015. 05. 26 (Annual Audit)
	Pohang	POH00337-SP002	2013. 08. 08 (최초인증 1997. 04. 10)
		POH00337-SP003	2012. 11. 16 (최초인증 1988. 09. 16)
		POH00337-QA001	2014. 02. 11 (최초인증 2010. 12. 15)
영국 선급협회 (LR)	Incheon	MD00/0754/0007/1	2017. 02. 28
	Pohang	MD00/0819/0014/1	2013. 07. 04
		MD00/3084/0006/1	2013. 07. 04
노르웨이 선급협회 (DNV)	Incheon	AMM-4420	2017. 06. 08
	Pohang	AMM-7054	2014. 11. 11
		R-3369	2012. 12. 31
미국 선급협회 (ABS)	Incheon	ML3-11 156172 a	2012. 06. 25
		ML3-11 250258	2012. 06. 25
		ML3-11 156172 c	2012. 06. 25
	Pohang	155204 e	2006. 04. 19
		155204 d	2006. 04. 19
		539617	2010. 01. 29
		506268	2009. 10. 13
		285891	2007. 11. 20

등급 Grade	품명 Product	구분 Section
A, B, AH32, AH36	Rolled Steel Section for Hull Structure	한국 선급협회 (KR)
-	Approval Certificate for Quality Assurance System	
A, AH32, AH36, DH32, DH36, FH32, FH36	Rolled Steel Sections for Hull Structure	
RL33, RL37	Rolled Steel Sections for Low Temperature Service	
RSBC70	Grade 3 Chain Bar	
-	Approval Certificate for Quality Assurance System	영국 선급협회 (LR)
A, B, AH27S, AH32, AH36	Steelmaking, Semi-Finished Products, Sections	
Sections : A, B, D, E, AH27S, AH32, AH36, DH32, DH36, AH40, DH27S, DH40, EH27S, EH32, EH36, EH40, FH27S, FH32, FH36, FH40, LTAH27S, LTAH32, LTDH27S, LTDH32, LTEH27S, LTEH32, LTFH27S, LTFH32, LTFH36, LTFH40	Steelmaking, Semi-Finished Products, Sections and Bars	
Bars : R3S, R4, U3, R3, U2		
Sections : A, B, D, AH27S, AH32, AH36	Steelmaking and Sections	
NV A, NV B, NV A32, NV A36, NV D36+TM	Steelmaking and Rolled Steel Products	노르웨이 선급협회 (DNV)
Sections: NV- A, E, A32, A36, D32, D36, F40, NV4-4, NV2-4L, NV4-4L Round Bars: NV-K2, K3, R3, R3S, R4	Approval of Manufacturer Certificate : Sections and Round Bars	
-	DET NORSKE VERITAS Manufacturing Survey Arrangement	
A, B	Hull Structural Steel Shape	미국 선급협회 (ABS)
AH32, AH36	Higher Strength Hull Structural Steel Section	
A, AH32, AH36	플랫바(Flat Bar)	
AH32, AH360	Section : Angle	
E	Sections	
AH32, AH36	Steel Sections(Inverted Angle)	
A, AH32, AH36, DH32, DH36	Sections : H-Beam (No. 1)	
RQ3, RQ3S, RQ4 (No. 1)	Bars : Rolled Steel Round Bar	
A, AH32, AH36	Sections : Angle (No. 2)	
FH40	Sections(Angle)	



hyundai-steel.com

Product Guide

Printed 2018. 05