



Scaw Metals/Haggie Reid

Further information requested by Commission post importer verification

Product differences and market perceptions

A	Customers drive the need for innovation	1
B	Example of a customer not proceeding with 9 strand wire ropes.....	3
C	Explanation of “end for ending”	4

A Customers drive the need for innovation

The Commission officials asked about the need for innovation and new solutions in the resources industry, and how a wire rope manufacturer such as Scaw Metals is motivated to address such a need.

The first observation our clients would make is that the resources industry is highly competitive, and that it is the strong market forces that shape the competition that in turn impacts on the suppliers to that industry. Technological innovation can improve throughput and reduce costs, thereby saving money and improving profitability.

Scaw Metals and Haggie Reid are not immune to such market forces, indeed they respond very positively to the needs of their customers. Our clients are committed to improving their services and products to meet customer demand and to remain competitive. This is not only evidenced by the introduction of the Inno 9 range of wire ropes to the market, but also by **[CONFIDENTIAL TEXT DELETED – commercial arrangements]** customers. For example, **[CONFIDENTIAL TEXT DELETED – commercial arrangements]** provides, *inter alia*:

- that **[CONFIDENTIAL TEXT DELETED – commercial arrangements]** if New Technology is made available **[CONFIDENTIAL TEXT DELETED – commercial arrangements]**;

NON-CONFIDENTIAL

- that **[CONFIDENTIAL TEXT DELETED – commercial arrangements]** continuous improvement on product cost and collaborate **[CONFIDENTIAL TEXT DELETED – commercial arrangements]** to provide additional benefits **[CONFIDENTIAL TEXT DELETED – commercial arrangements]**; and
- that **[CONFIDENTIAL TEXT DELETED – commercial arrangements]** aware of developments of New Technology **[CONFIDENTIAL TEXT DELETED – commercial arrangements]**.

The relevant excerpts **[CONFIDENTIAL TEXT DELETED – commercial arrangements]** are attached.¹

This is an example of how technological innovation and product improvements are embedded **[CONFIDENTIAL TEXT DELETED – commercial arrangements]**.

It is worthwhile to consider the history that brought about this awareness within customers, **[CONFIDENTIAL TEXT DELETED – commercial arrangements]**, of the technological improvements that are possible, to which they responded by insisting on those new developments being delivered to them **[CONFIDENTIAL TEXT DELETED – commercial arrangements]** the pace of those new developments.

The conception of the 9 strand wire rope can be traced back to the early 2000s, when field reports found that 8 strand wire ropes were outperforming 6 strand wire ropes on certain machines. In particular, the 8 strand ropes were performing well where rope breakages usually resulted from excessive bending over sheaves. The 8 strand's performance could be attributed to its increased flexibility.

As time went by, Scaw Metals experimented with and then introduced compacted 8 strand wire rope, followed by 8 strand wire ropes with a specialised cushion core. The photo below depicts one of the earliest examples of Scaw Metal's experimentation with providing a cushion core (2010):

¹ Attachment 20 **[CONFIDENTIAL ATTACHMENT]**.



By the end of 2010, Scaw Metals was winning contracts to supply its 8 strand compacted and cushion-cored wire ropes, by reason of their better performance and the resultant cost savings they delivered to mine owners.

In 2015, **[CONFIDENTIAL TEXT DELETED – commercial arrangements]** to engage in product development that would enhance the rope lives **[CONFIDENTIAL TEXT DELETED – commercial arrangements]**. It is these conditions of constantly looking to improve their products and services for customers that gave rise to the 9 strand wire rope.

Our clients' commitment to improving its own products is also stipulated in Haggie Reid's **[CONFIDENTIAL TEXT DELETED – commercial arrangements]** KPIs are reproduced below.

[CONFIDENTIAL TEXT DELETED – commercial arrangements]

This maintains the theme – customers do not consider wire ropes to be commodity products; they are aware that new developments can be to their benefit; and they want to be in a position to benefit from those new developments.

B Example of a customer not proceeding with 9 strand wire ropes

Please refer to the attached email correspondence between **[CONFIDENTIAL TEXT DELETED – employee]** of Haggie Reid and **[CONFIDENTIAL TEXT DELETED – customer details]**.² **[CONFIDENTIAL TEXT DELETED – customer purchasing decision]**.

² Attachment 21 **[CONFIDENTIAL ATTACHMENT]**.

Attention should also be given to the emails **[CONFIDENTIAL TEXT DELETED – details identifying communications]** provide an example of a wire rope customer enquiring about the performance characteristics of Reid’s wire ropes. Clearly, customer demand for better and longer lasting ropes, as we have already evidenced, is a significant driver of innovation in the wire rope industry.

We would also note the comments in **[CONFIDENTIAL TEXT DELETED – details identifying communications]** email with respect to the comparative pricing **[CONFIDENTIAL TEXT DELETED – pricing]**.

C Explanation of “end for ending”

In certain wire rope applications, such as drag ropes, it is common practice to periodically switch one end of the rope with its other end (i.e. to reverse the rope). By relocating the points where the rope is most worn, the rope wears more evenly and its life can be extended. This practice is commonly referred to as “end for ending”.³

However, during the period in which a rope is being turned around in this way, the associated machine cannot be used. As a result, a mine site can suffer significant machine downtime costs. For example, the downtime cost **[CONFIDENTIAL TEXT DELETED – customer details]** is approximately AUD **[CONFIDENTIAL TEXT DELETED – number]** k per hour. It can thus be more economical not to extend rope life by “end for ending” them, but instead to use more ropes per year and avoid “end for ending” them altogether, since doing so eliminates the downtime costs that would otherwise be incurred.

This option has been made possible by Reid’s more flexible and fatigue resistant 9 strand ropes. Essentially, the equation involves paying more for longer-lasting ropes, but the extra payment being less than the downtime cost of having to “end for end” ropes that do not last as long.

Prior to the introduction of 9 strand wire ropes, **[CONFIDENTIAL TEXT DELETED – customer details]** rope management and maintenance schedule for a single machine roughly followed the below schedule:

- **Week [CONFIDENTIAL TEXT DELETED – number]** – install wire rope

³ See page 8 of Attachment 8 on the EPR.

- Week **[CONFIDENTIAL TEXT DELETED – number]** – end for end the rope (approximately **[CONFIDENTIAL TEXT DELETED – number]** hours in downtime)
- Week **[CONFIDENTIAL TEXT DELETED – number]** – replace the rope (approximately **[CONFIDENTIAL TEXT DELETED – number]** hours in downtime)

In **[CONFIDENTIAL TEXT DELETED – period]**, a single machine would go through about **[CONFIDENTIAL TEXT DELETED – number]** ropes (there are outlier ropes which must be replaced earlier than the **[CONFIDENTIAL TEXT DELETED – number]** week mark). The annual cost associated with using 8 strand ropes on a single machine can be depicted as below:

Cost of ropes ⁴	[CONFIDENTIAL TEXT DELETED – hours/cost]
Downtime cost of end for ending	
Downtime cost of replacing rope	
Annual cost per machine using non 9 strand wire ropes	AUD [CONFIDENTIAL TEXT DELETED – number]

The ropes are end for ended at week **[CONFIDENTIAL TEXT DELETED – number]** because otherwise they would fail at week **[CONFIDENTIAL TEXT DELETED – number]**.

In contrast, Scaw Metal’s 9 strand wire rope is more flexible and fatigue resistant, allowing it to be used on the same machine for approximately **[CONFIDENTIAL TEXT DELETED – number]** weeks before needing to be replaced. This has offered the **[CONFIDENTIAL TEXT DELETED – customer details]** opportunity to significantly alter its rope management and maintenance schedule, and to profitably bypass end for ending altogether, as per the below rough schedule:

- Week **[CONFIDENTIAL TEXT DELETED – number]** – install 9 strand wire rope
- Week **[CONFIDENTIAL TEXT DELETED – number]** – replace the rope (approximately **[CONFIDENTIAL TEXT DELETED – number]** hours downtime).

Without end for ending, a single machine **[CONFIDENTIAL TEXT DELETED – customer details]** will consume **[CONFIDENTIAL TEXT DELETED – number]** (approximately) 9 strand wire ropes per

⁴ “Ballpark” figure for purposes of example used.

machine per year. This is more than the number of 8 strand wire ropes referred to in the above example, however this is without end for ending and therefore without the downtime costs associated with end for ending. Thus, the comparative table for 9 strand rope would look something like this:

Cost of ropes ⁵	[CONFIDENTIAL TEXT DELETED – hours/cost]	
Downtime cost of end for ending		
Downtime cost of replacing rope		
Annual cost per machine using 9 strand wire ropes	AUD [CONFIDENTIAL TEXT DELETED – number]	

Clearly the 9 strand proposition presents **[CONFIDENTIAL TEXT DELETED – customer details]** significant annual cost savings. Moreover, the above cost savings are merely for a single machine. **[CONFIDENTIAL TEXT DELETED – customer details]** machines, representing a potential annual cost saving of AUD **[CONFIDENTIAL TEXT DELETED – number]** m. It is this magnitude of cost saving that **[CONFIDENTIAL TEXT DELETED – customer details]** Inno 9 range of wire ropes.

Additionally, more field results have become available since the importer verification visit to Haggie Reid at St Marys. In that regard please refer to the attached email correspondence between **[CONFIDENTIAL TEXT DELETED – employee]** of Haggie Reid and **[CONFIDENTIAL TEXT DELETED – customer details]**,⁶ in which **CONFIDENTIAL TEXT DELETED – customer details]** advises:

[CONFIDENTIAL TEXT DELETED – customer opinion based on usage]

We submit that the meaning of this is plain. Acceptance and appreciation of the better performance provided by the Inno 9 wire ropes is building in the mining community.

Daniel Moulis
Partner Director

⁵ Ballpark figure increased by **[CONFIDENTIAL TEXT DELETED – number]** % (see page 36 of our letter dated 12 September 2018).

⁶ Attachment 22 **[CONFIDENTIAL ATTACHMENT]**.