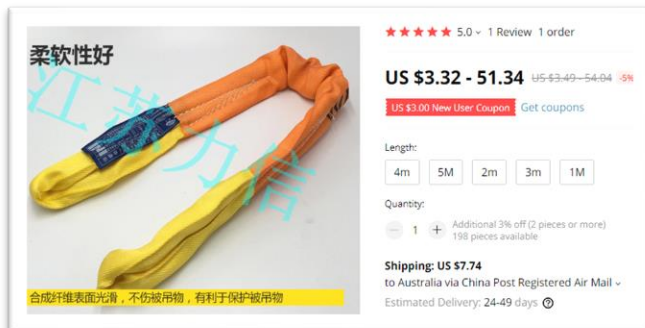


## Where does your lifting gear come from?

Over the last 2 decades we've been increasingly blessed with the abundance and diversity of goods available online. The majority is from countries with low(er) manufacturing costs and as a result, is priced quite competitively. Many of these items appeal to us even more as they deliberately mimic known brands with trusted reputations and status. This is not so much of a problem if you are buying swimwear, home electronic equipment, fishing lures or handbags.

This IS a problem if we are talking about Safety equipment or rigging gear.



If you were going to step away from one reputable brand to another reputable brand, that is one thing, but sourcing lifting components or rigging equipment from certain online sites is a recipe for disaster for the following reasons.

- The 'Seller' is not the manufacturer, who's identity often unknown.
- Translation issues make confirming technical and certification data difficult.
- Often cheaper products are copied, not designed and will have sub optimal dimensions and attributes.
- Testing methods are often unproven.
- Material properties / behaviour are unknown.



With quality lifting components e.g. concrete panel clutches and inserts, It's not all about the strength. An important and misunderstood function of these components is the way they fail if they are overloaded (assume accidentally). What we want is a ductile material

property which means there is yield or plastic deformation prior to fracture. This yield is an early warning of impending failure/fracture and a sign of overloading. What we don't want is a brittle material property where there is no yield but a sudden catastrophic failure/fracture. A good example of this is when you see a chain with stretched links.



this is far more preferable failure mode rather than suddenly snapping. Generally proof load testing causes slight yielding as shown below. The absence of these marks could indicate that a clutch has never even been proof load tested.



So, what creates the optimal physical material properties for any metal component? In a word, metallurgy. It covers the science of what micro constituents are in the metal/alloy, what heat treatments are used and importantly, the resultant material physical behaviour. It's unlikely that it will be even mentioned by certain online suppliers and It's impossible to tell anything about the metallurgy just by looking, so identifying fake equipment is difficult if the dimensions are a close match.

The take-away is, we need to be aware of what lifting gear we are using and where it has come from and importantly, have assurance it's safe to use.

AS3850:2015 requires all clutches be inspected, identified and annually proof loaded to 1.2WLL. If we are sourcing new lifting gear, we need to make sure it's from a reputable manufacturer with correct and full documentation, evidence of testing and tagged as per AS3850. The clutch must connect freely to the insert using hand pressure only. Apertures of concrete elements and lifting inserts are to be inspected for serviceability prior to any lift. Given the severe consequences associated with precast concrete rigging failures and the number of workers in close proximity, we need to do everything we can to avoid preventable incidents.

*Stay Safe -CICA*