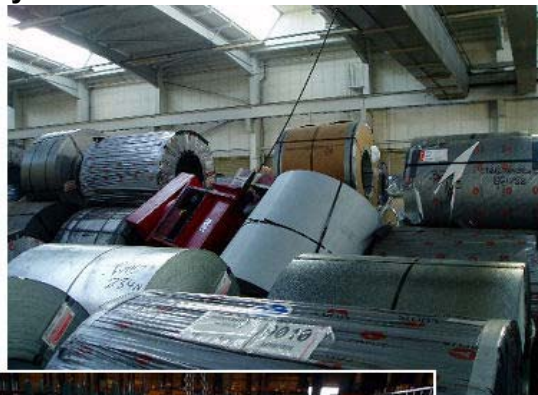


HEALTH & SAFETY COMMITTEE**Focus of the Month
Storing Steel Safely**

Issue No 7

Storing steel products of all shapes and sizes is fundamental to our businesses. Sadly, poor storage methods can and have led to serious, even fatal accidents. NASS and the HSE recognised this as a significant hazard some years ago, and jointly produced comprehensive guidance – HSG 246 – “Safety in the Storage and Handling of Steel and other Metal Stock”.

This is now available to download free from the HSE website (www.hse.gov.uk) (along with all other HSE guidance documents), but some basic considerations are outlined below.

**Stability**

If steel stock is unstable it may slip, fall or topple with the risk of crush injuries. Many different factors affect stock stability including:

- **Nature of product.** Packs of sheet or plate are inherently more stable than stacks of beams or other long, narrow products. This needs to be taken into account when deciding how high material can safely be stacked before racks or other restraints need to be introduced.
- **Integrity of stacks (or packs) of product.** Where material is stacked it is often separated by dunnage. Particularly in the case of softwood, increased weight of product may squash the dunnage reducing the stability of the stack. Some packs of product (e.g. hex packs of tube) rely on banding to keep them together. Putting more and more weight on such packs could increase the force on the banding, potentially resulting in banding failure.
- **Floor conditions.** Floors need to be strong enough to support the weight (and weight distribution) on them. Dirt / unmade floors (or ground in the case of external storage) or even thin concrete slabs may settle over time leading to unintended collapse of stored material.
- **Environment.** Stock can collapse due to external influences – e.g. collisions by mobile plant or other vehicles, high winds or even vibration from adjacent machinery.

All of these need to be taken into account when carrying out your risk assessment on storage. As part of the process, rules should be established on the maximum heights of stock for your business. Put signs up around the building to indicate these heights and make sure your people are trained so they understand why it is important to follow the rules. In the case of material that is relatively unstable, racking should be considered to provide a safer working environment.

Access

When deciding how material should be stored, means of access needs to be considered:

- General access for people to move around the storage areas – provide proper walkways and ensure good housekeeping
- Access for people to sling material if it's moved by crane – if steel is stored in high stacks, not only can it be unstable but it also makes access for operators very difficult. Climbing on steel is poor practice and should be avoided (consider the Work at Height Regulations and the hierarchy to avoid work at height / prevent falls / mitigate the consequences of falls).
- Access for vehicles / forklifts etc where they are used for material handling – consider turning circles and make sure there's enough space to operate without colliding with other stock or equipment



It is also good practice to restrict access into storage areas – authorised, trained people only!

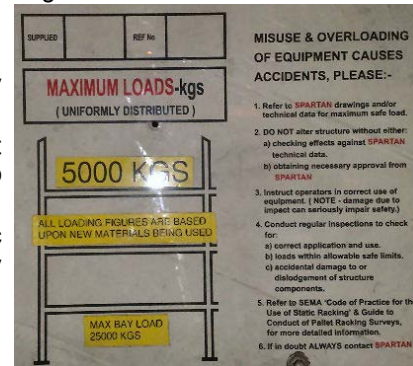
Strictly no admittance

Racking

In many cases, racking will be necessary to ensure safe storage. In general terms, it needs to be designed and manufactured to cope with specified types and weights of products. There are many different types of racking – see the HSE guidance for more information.

Pallet racking is often used for some steel products, including sheet products. To ensure safe operation, there are a number of issues that should be considered with pallet racking:

- Make sure it's designed to take the weight
- Clearly mark racking with Safe Working Loads – limits may apply to each bay, rack, level etc
- Consider protection from mobile plant – even the most careful FLT driver is prone to make the odd mistake, so consider protecting racking, particularly the base of uprights.
- Set up an inspection regime – as well as a periodic inspection by a competent person, a daily or weekly inspection system should also be operating to check and record day to day condition, loads within safe limits etc.
- Hazard / damage reporting – even what appears to be relatively minor damage may significantly affect the load bearing capacity of racking, so ensure that there is a system in place for reporting damage and that people are encouraged to use it.



Summary

Many different factors influence safety in storage. As well as considering the storage system, the way it will be used needs to be assessed. Advice is available from NASS (guidelines) and the HSE – make the most of it and ensure you store steel safely.

DISCLAIMER: This is the opinion of the NASS H&S Committee but only the courts can interpret the law. All employers should refer to the legislation.