



The Importance of Proper Packing

17th April, 2007

With recent high metal prices leading to a large influx of metal in to the London Market, some of the vaults in London have noticed that in some cases, refiners have been taking insufficient care in ensuring that the physical appearance of bars is up to standard and just as importantly, that bars are being securely and safely packed. Although the issues in this paper apply to both gold and silver, the problems experienced to date mainly relate to silver, no doubt because production, packing and transport costs as a percentage of the underlying metal value are much greater than for gold and the pressure to cut costs is therefore that much greater.

In recent years, health and safety regulations have become increasingly strict as governments have sought to minimise risks to workers in all fields of human activity, including operations in the bullion market which involve shipment, handling and storage of bullion bars. As a consequence, vault managers are required to carefully examine shipments of bars arriving at their premises to ensure that they pose no significant risk of accident. In the event of a serious accident, it is quite possible that their vault could be closed down (at least temporarily) with heavy fines being imposed. It is important to appreciate that vault managers have the absolute right to refuse to take delivery of metal which in their view does not comply with the LBMA Good Delivery specifications or where they consider the state of the packing to pose a potential safety hazard or the method of transport may result in a breach of security. In the event of bars being rejected, the producer, carrier or customer of the Market may not only be responsible for the cost of having the bullion repacked but also for any funding costs incurred by the intended recipient if the bullion cannot be delivered on the due date.

What makes for dangerous

packing? 1. Bar Finish

The top surface of the bar should not have excessive shrinkage and the top and bottom surfaces should not have raised projections as either of these factors can contribute to a stack of bars being unstable.

End elevations should not have a raised lug as seen on Chinese silver; if these are present the bars should be classed as NGD and rejected by the vault manager. It is important that bars are uniform in shape and not tapered either in their length or width. Sharp edges are also unacceptable as this can result in injury to handlers when unpacking or moving the bars.

2. Packing

Gold:

Preferred Standards:

- Gold bars should be placed on well-constructed pallets made of sturdy wood that individually can carry one tonne (the recommended maximum per pallet) and be capable of being stacked up to six pallets high.

Recommended pallet dimensions are:

L 600 mm x W 700 mm x H 140 mm

The thickness of timber used should be at least 25mm. A gap of 100mm is also required to allow standard fork lifting equipment to move the pallet and metal.

- The bars should be adequately strapped such that when being moved on a fork lift or Collis truck that might be brought to a sharp halt the bars will not topple with the generated forward momentum. It is preferable that bars should be protected with bubble wrap or something similar to prevent bars rubbing together whilst in transit.
- Gold bars should be packed in wood, plastic or carbon fibre boxes and securely strapped to each pallet whilst in transit. Boxes need to be marked with the packed weight and a unique reference number. Alternatively 40 bars (500 kilos) packed on a pallet and covered in a plastic tote is acceptable. The tote should be nailed to the base of the pallet with a lid with drill holes allowing for metal pull tight seals at each corner to seal the tote. Suitable metal/nylon banding should be used to band the box itself.

The image below provides one example of how the London Bullion market custodians expect metal to be prepared for safe transit via air:



Gold prepared for transit on a domestic basis by vehicle can be securely strapped to a pallet by metal or nylon strapping as shown below. A minimum of two straps around the pallet should be used.



All pallets must be heat treated, fumigated and carry a mark to prove this. Any bullion packed on pallets or in wooden boxes without this mark could be rejected by Customs and Excise.

Unacceptable Standards:

Plastic pallets are not considered to be suitable as they are not strong enough to support large weights. It is not unknown for a stack of inferior quality pallets to suddenly collapse causing several tonnes of gold to crash to the vault floor. Fortunately to date no-one has been injured but health and safety regulations mean that active steps have to be taken to prevent such accidents.

- Pallets constructed of poor, very dry or brittle timber should be avoided. This prevents the risk of pallets collapsing under weight.
- Bars of different dimensions should not be mixed on a single pallet. This will enable gold to be stacked safely and avoid any unstable stacking.
- Single bars in drums. Packaging of this nature makes handling very onerous and time consuming.

Especially in the extremely high levels of physical movements that the market is experiencing at present, it is not possible for a vault to repack and re-strap inadequately packed pallets. The only option for a vault manager facing this problem is rejection of part or all of the shipment.

Consequently producers and carriers need to be aware of the need for safe and secure packing and take appropriate preventive action.

Silver

Preferred Standards:

- 30 silver bars should be placed in three even layers of ten bars per layer on well- constructed pallets made of sturdy wood that individually can carry one tonne (the recommended maximum per pallet) and be capable of being stacked up to six pallets high.

The recommended pallet dimensions are:

L 600 mm x W 700 mm x H 140 mm. This pallet design allows for easy handling from containers using hand operated pallet trucks.

The thickness of timber used should be at least 25mm. A gap of 100mm is also required to allow standard fork lifting equipment to move the pallet and metal.

The image below displays the preferred size of the pallet gap.



- The bars should be adequately strapped such that when being moved on a fork lift or Collis truck that might be brought to a sharp halt the bars will not topple with the generated forward momentum.
- Silver bars should be stacked and securely strapped to pallets in a uniform manner for safe transit.
- All pallets must be heat treated, fumigated and carry a manufacturer's mark to prove this. Any bullion packed on pallets or in wooden boxes without this mark could be rejected by Customs and Excise.
- No more than 20 tonnes of silver should be loaded in a container at any time.

The image below displays how silver bars should be prepared for safe transit and storage:



- It is preferred that silver grain is packed in 25kg bags placed inside large wooden containers which are secured to sturdy pallets. This enables the London vault to stack and store large volumes of grain efficiently.



Unacceptable Standards:

- Plastic pallets are not considered to be suitable as they are not strong enough to support heavy weights. It is not unknown for a stack of inferior quality pallets to suddenly collapse causing several tonnes of silver to crash to the vault floor. Fortunately to date no-one has been injured but health and safety regulations mean that active steps have to be taken to prevent such accidents.
- Pallets constructed of poor, very dry or brittle timber should be avoided. This avoids the risk of pallets collapsing under weight. Silver has been recently received on pallets constructed of ply wood. The receiving vault has to immediately move the silver onto stronger pallets to enable safe stacking. This process in itself is very labour intensive and should not be necessary if metal is received in a safe manner.
- Large Pallets i.e. Euro size pallets are used to pack silver from time to time. However, they are too difficult to move around and packers are overloading them because they have a larger surface to cover. Euro Pallets should only be used if a client expresses a preference for his metal to be delivered in this way.
- Bars of different dimensions should not be mixed on a single pallet. This will enable silver to be stacked safely and avoid any unstable stacking.

The image below displays silver of various brands which have come loose from their strapping whilst in transit, rendering each pallet very unstable and dangerous.



- Single bars in drums
- Silver bars should not be packed in boxes, bagged or covered in plastic or any form of wrapping.

The image below displays the condition of silver wrapped in plastic bags when it has finally reached its destination vault in London. Silver bars have slipped from their pallets and fallen off into the truck. Vault and carrier staff are put at risk by falling bars when the tailgate is opened. Silver in bags is slippery to handle and puts vault personnel at risk of dropping the bar when trying to handle the metal.



The two images below display silver wrapped in sacking and polythene. This type of wrapping means that London vault staff have to handle the bars more than is necessary and severely slows down the inspection process upon receipt of a silver consignment.



Silver in plastic bags also makes the metal too unstable for stacking pallets more than two pallets high. The image below displays a situation where a silver stack has collapsed as a result of silver being packed in bags and on poor quality pallets.



- It is preferred that silver grain packed in bags and strapped to a pallet should be avoided. There is a high risk of bags splitting in transit and losing their contents. Additionally, grain cannot be stacked several pallets high making for an inefficient use of vault storage space.

The image below is an example of how silver grain should not be packed for transit:



Summary:

In summary, failure by a producer, shipper or customer of the London market to observe these simple guidelines on production, packing and transportation may result in the proposed delivery being rejected and any additional costs being incurred by the consignor.