Metal drums are best stowed upright and close together. Drums containing dangerous chemicals should be stowed on a timber dunnage laid in the long axis of the container.

Unless the drums and barrels are especially designed to "nest," there should be some form of soft dunnage, such as timber or hardboard, between each tier of drums. Next to doors, they should be secured by steel strapping and/or wooden wedges.

Metal drums and wooden barrels should never be stowed together. To avoid leakage, wooden barrels should lie on their bilges in such a way that the weight is absorbed by the ends and not the middle. This is done by placing planks under the ends of the barrels to a height where the bilges do not touch the container floor. The barrels are then prevented from rolling by means of wedges.

6. Pallets

Cargo should be secured to a pallet by strapping, gluing or shrinkwrapping. Dimensions of pallets should be chosen to utilize the transport equipment fully.

If the dimensions are such that there is only room for one unit across the width of the transport equipment, the row should be stowed down the middle. If dimensions allow two or more pallet units across the width, the rows should be located close to the sides.

When pallets are stowed in a single layer, timber connectors under each pallet are sufficient for securing them. If they are stowed in several layers on top of each other, securing should be done by means of timber strutting or air bags.

7. Rolls and Coils

Rolls of paper which are stowed upright should be packed close together down the ends and along the walls of transport equipment. Any empty spaces between rolls must be filled in. Next to door openings, the rolls should be secured by means of planks and/or wedges.

Heavy steel coils, when shipped with a horizontal axis, must be supported by wooden beams to avoid concentrated loads on the floor of the transport equipment. Wedges and strong wire lashing should be used for securing.

When stowing steel coils with a vertical axis, the same stowage method as for rolls of paper should be used.

If steel coils are shipped on specially designed skids or pallets, they need to be tightly fastened to the skids.

8. Machinery

Machinery and heavy pieces of equipment are normally shipped in open-top containers or on flats. Heavy lifts should be placed on strong wooden skids, which should be tightly fastened to the load.

If only a single piece is shipped, it must be placed in the centre of the transport equipment. Skids should be secured to the floor and strutted against corner posts and/or longitudinal rails.

The load should be secured against sliding in a longitudinal direction by means of strong timber connectors. For transverse securing, timber beams should be used.

9. Vehicles

Passenger vehicles and small trucks can be shipped in closed box containers. It is essential that they are absolutely dry when put into the container. Windows should be opened about 1 cm. Special lashings are available to secure vehicles to the container.

Larger trucks, harvesters and bulldozers can be shipped on platforms or flats. Steel wire with turnbuckles and wedges should be used for securing.

Handling Techniques According to Movement

1. Marine Cargo Movements

When stuffing a marine cargo container, it is important to remember that the ocean is part of the international voyage. Oceans are rough, particularly the North Atlantic in the winter. Crossing can be hazardous; vessels, containers and the goods can sustain considerable damage. In violent storms, containers carried on deck can be swept overboard or even jettisoned to save the ship.