Chapter 2
The Separation of Products in the Holds of Bulk Carriers

There is a considerable trade in the bulk carriage of relatively small quantities of cereals, oil seeds and their derivatives, with a number of such products shipped simultaneously on board bulk carriers. It is not uncommon for three or more consignments to be stowed in the same hold using separation material to avoid admixtures. However, incidents have arisen where, despite the use of separation cloths, admixtures have occurred and claims have been made by cargo interests.

In addition to separation of different grades, particularly with slack holds (part filled with grain), it is necessary to have the trimmed layer secured to prevent cargo shifting. In such cases, separation principles and/or overstowage with bagged grain are options.

The steps necessary to avoid any risk of admixture are not complicated, but it is worth bringing them to the attention of ships’ officers and others responsible for the stowage of multiple consignments.
The following measures may be taken:

- Where it is intended to overstow one bulk parcel with another, the lower parcel should be trimmed as flat as possible. If the surface is left uneven, there is a risk that the separation material may be damaged, either as a result of uneven stresses during the sea passage or as a result of contact with the grab or elevator legs and bulldozers. Provided this procedure is followed, a single layer of separation material of good quality is considered adequate. Recommended materials include woven polypropylene, polythene sheets or burlap.

- During loading operations, it is essential that the distance between the separation material and either the top of the weather deck hatch coamings or the deckhead of the hold is measured and recorded. This makes it possible to effectively locate the separations between the parcels during discharge and avoid tearing or damaging the separation material.

- Loading second and third parcels may entail pouring cargo from a considerable height. As a result, the surface of the lower stow inevitably becomes depressed, as shown in Figures 2.1 and 2.2. Because of the need to ensure a relatively even surface between any two parcels, it may be wise to plan the stowage so that commodities with a high angle of repose, such as cereals and oil seed derivatives, are loaded below those with a low angle of repose, such as canary seed or linseed.

Siting the separation material at a level between the slant plating of the upper and lower hopper tanks will eliminate any difficulties caused by cargo settlement.

- Ideally, the level of the separation between any two parcels should not be located in the vicinity of the upper ballast tank hoppers. This will ensure that, when the inevitable settling of the cargo occurs during the course of the voyage, the surface area of the separation material will remain adequate and prevent admixture. This problem does not arise in the vicinity of the lower hopper tanks.