

The condition of hot coil loading (typical 15T coil) is mentioned in CSR under Chapter 6 Section 1 paragraph 2.7, (is normally included as a standard condition in the ship loading manual and stability information including damage Longitudinal strength calculations as per IACS UR S17 & 25), other steel product loading conditions such as steel slabs and steel billets are not normally included in these manuals unless the owner specifically requests them from the builders. There is one unclear mention of other “heavy cargoes” in Chapter 4 Appendix 1 Hold mass curves paragraph 1.1.4 where it states that special consideration should be given for these cargoes.

As an example, a hot coil maximum allowable cargo for a typical 58K Supramax vessel under CSR is about 35,200T, for 15T coil in two tiers high.

The steel slab cargo is typically sections of 6500 x 1200 x 250 of 15,3MT each, and the steel billets of 150 x 150 x 12000 in bundles of 4 billets per bundle of 8MT each.

The maximum allowable cargo intake for these products is not normally registered in the loading manuals, as it seems it is not a rule requirement. Typical recent cases of these cargoes occurred where the charterers requested full DWT cargo to be loaded.

The loading computer programs also do not cater for these cargo conditions referring to the typical cargo mass, i.e. the maximum cargo intake in intact condition, in accordance with tank top strength (mt/m^2), and hold maximum loading weight.

However in case these conditions are tested against flooding criteria, as per UR S17, they cannot comply as the BM & SF are above the maximum allowable range for the flooded condition.

Furthermore, to make things more complicated for the masters, the supplements of the loading manuals, the longitudinal strength in damaged condition, only state that in case we have steel mill products, the actual cargo density should be used with a permeability of zero. This is a very severe condition for longitudinal strength in damaged condition taking into consideration steel with density of 7,65mT/m³ as the cargo only occupy a typical 7~10%, of the cargo hold volume, the remaining volume

is taken up by flooding sea water (1.025) up to the equilibrium level at the corresponding draft.

This situation has created a huge confusion in the shipping of steel product cargoes and Masters do not have reliable approved information regarding the safe loading of high-density steel mill products, but accepting to load full cargoes to the summer marks regardless whether the ship is designed for it or not.

We propose to amend the particular section of the rules to clarify and provide for the loading conditions of steel products other than steel hot coils, (which are already included), in order to cover cargoes such as Steel Slabs, Steel Billets etc, as to the maximum cargo intake possible while still complying with URS S17.