ABSTRACT

A STORAGE VESSEL FOR CRYOGENIC LIQUID

A storage vessel for cryogenic liquid having a lower portion for receiving said cryogenic liquid and a vapour space provided thereabove. The vessel comprises a condenser for condensing boil-off vapour by direct heat exchange with cryogenic liquid feed to the vessel. The condenser comprises a packed arrangement of vapour-liquid contact packing that comprises a top end portion and a bottom end portion. At least said top end portion is open to the vapour space to allow entry of boil-off vapour into the arrangement. The bottom end portion is in fluid flow communication with the lower portion of the storage vessel. The vessel further comprises an inlet for providing cryogenic liquid feed to the top end portion of the packed arrangement of vapour-liquid contact packing and an outlet for removing cryogenic liquid from the lower portion of the vessel. One advantage of the invention is that the condenser is open to the vapour space of the storage vessel thereby allowing boil-off vapour to be drawn into the condenser by the condensation action of the vapour.

(Figure 1)