

# ON THE CALCULUS OF THE SHAFT LINE FROM SHIPS

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**Abstract:** *The shaft line calculus from ships is very important because the functional parameters of the propulsion plant and especially the safety of the ship and passengers (cargo) ship depend upon it. This calculus can be effected by applying the theoretical method Chapeyron and more approximate methods like Finite element method (using FEMAP, STAAD, SAP, ...). The shaft line calculus concerns material selection and dimensioning intermediate shaft, propeller shaft, thrust shaft, shaft liners, coupling connections, coupling flange bolts used for connection the flanges, stern tube bearings, intermediate bearings and bearing lubrication. After effecting loads calculations, a verification considering the shaft line under the influence of static loads is performed. The contact pressure in bearings in stern tube bearings and in intermediate bearings, shear bolts of the connecting shaft, shear tension in flanges of the connecting shafts, torsion stress of the shaft line, composed stress and safety coefficient will be verified.*

**Keywords:** intermediate shaft, propeller shaft, thrust shaft, shaft liners, coupling connection, flange bolt, bearing, lubrication bearing

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