Abstract

PT. Smelting is the first fusion and purification copper factory in Indonesia. PT Smelting planned to increase their production capacity per year. The increase of production in PT. Smelting is very related with the increase of come and out of cargo in port. So it is effected in increasing the number of tied up ship. These day, the pier owned by PT Smelting Gresik could only receive 35000 DWT and 8000 DWT ship. For the next period it is planned to also receive 12000 DWT and 15000 DWT ship. For 12000 SWT ship, it will be combined or it could be tied up together with 8000 DWT ship in east side, whereas 15000 DWT ship tied in west side of the port. Based on Master Plan Port PT. Smelting concept there will be Curah Port development located in Roomo Village Subdistrict Manyar Gresik. Geographical position of the location is about 112° 38’ 7” East Longitude and 07° 8’ 24” South Latitude. One of the development is to give fender system on the west side of the pier with the distance each fender is 20 m, the building of mooring dolphin organize as hexagonal with the dimension of every size is 2,208 m and catwalk length is 30 m using Circular Hollow Sections (CHS) Profile. Besides that there will be dredging on the west side of the pier for new port pool and also structure analysis of existing pier because of dredging activity.

The design including fender structure design, mooring dolphin, catwalk, dredging program, realization method and expense calculation. Development of this port, needs total cost of round Rp.32.069.771.000,00

Key word : Mooring Dolphin, Catwalk and Fender System, Dredging, Structure Analysis.