THE COMPARISON PRODUCTIVITY OF STATIC TOWER CRANE AND MOBILE CRANE WITH MODIFICATION OF POINT SUPPLY POSITION

Name : Arief Hadi Pranata
NRP : 3110 105 012
Student Programs : Civil Engineering FTSP – ITS
Supervisor : Tri Joko Wahyu Adi,ST,MT,PhD. : Yusroniya Eka Putri, ST.MT

Abstract

On the construction projects Rusunawa Pucang Sidoarjo which has a five-story buildings and heavy equipment that is used material lifting equipment as a mobile crane. The material structure used all of the concrete precest, both columns, beams, and floor plate. Because the project area large enough for placement of material allows more than one area to supply and can also be done for the movement of mobile crane. By analyzing the field existing conditions made it possible to modify the supply area to determine the optimum time, especially for the removal of material. Possible to analyzing the use of tower cranes as a comparison mobile crane, because tower crane has advantages that it doesn’t need the area large with coverage further.

From this study obtained three results of scenarios. These three scenarios are calculated each of both mobile crane and tower crane to looking for the most optimum time for each scenario. To determine the location of tower crane according to the conditions of the project, and the transfer supply area is also adapted to the conditions of the project.
Of the three scenarios obtained the most optimum time was three scenarios in which the time for the mobile crane 23 days, 7 hours, 17 minutes. tower crane and for 23 days, 1 hours, 18 minutes. So, in the third scenario the use of tower cranes up faster 5 hours, 59 minutes, than the use of mobile cranes.

Keyword : Tower Crane (TC), Mobile Crane (MC), Point of supply, The Lift Time, Material