ABSTRACTION

PT. Kereta Api Imdonesia is one of the state-owned companies that serve land transportation services in Indonesia and has an Operational Area to serve various regions in Indonesia as much as 9 Operations Area, including Daop I Jakarta, Daop II Bandung, Daop III Cirebon, Daop IV Semarang, Daop V Purwokerto , Daop VI Yogyakarta, Daop VII Madiun, Daop VIII Surabaya, Daop IX Jember. Of course, to meet the operation of the 9 Daop it takes a lot of machinists, Railway Engineers require Physical and Mental needs especially High Concentration while running the Railway, Based on the high concentration and physical and mental needs while running the train, encouraging authors to conduct research to measure the Mental Workload felt by machinists, especially the Bandung-Banjar Railway Engineer, and using the RNASA-TLX method which is the measurement of Subjective workload.

Workload measurements were performed using the RNASA-TLX method. Where RNASA-TLX is a development of the NASA-TLX method used to measure the driving workload. And RNASA-TLX is a multidimension ratting procedure that divides the workload on the basis of the average loading of six subscales. The subscale includes, Mental Claims, Audit Claims, Visual Claims, Claims, Difficulty in Understanding Information and Difficulty in Driving. For the process, after obtaining the results of the distributed questionnaires distributed to the machinists, then weighted variables are done, the weighting is made between six of the drivers.

The provision of randomisation for the six variables contained in the RNASA-TLX workload and divided into 5 levels, ie very low (0% to 20%,), low (21% -40%), moderate (41% -60%), high (61% -80%) and very high (81% -100%). This is intended to provide ease of machinist in answering it. The result of data processing is then used as input on RNASA-TLX. So obtained the amount of workload perceived by the worker.

From the results of data processing conducted can be obtained the average workload of 70.04% with the details that the entire train driver, amounting to 15 engineers serving the Bandung-Banjar route is in overload condition, with Mental Tuntuan Detailed 78.8%, Auditory Claim 69.4% Visual Demands 66.6% Demands Time 61.6%, Difficulty in Driving 63.3% and Difficulty of Understanding Information 65.5%.

From the calculation of the average weighting score of RNASA-TLX variable, obtained workload in the category of mental work with 62% percentage while the physical work category is only 38%. From the data it can be concluded that the average workload perceived by the machinist with the Bandung-Banjar route is dominated by the category of mental work.

Keywords: Mental Workload, machinist, RNASA-TLX