

Study Utility Vehicle Makassar City Transport a High-Ergonomics

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ABSTRACT

The development of technology during this was to meet the man, but it should be men must be spoilt, But if it turns out that all that did not make people feel safe, comfortable, healthy and easy, but the planning process, decision-making and developments have experienced a deviation orientation. Public transport Transportation in the Makassar city should be made with implementing aspects promotes ergonomic comfort, but it does not apply in means of transportation to the public. Issues for public vehicles on access up and down not in accordance with The aim of the research vehicle users. is to phrases dimensions body which have an effect on to utility vehicle, to examine the public vehicles that high-promotes ergonomic comfort. The method assessment is the measurement dimensions body to the passengers as well as the use questionnaires and analyzed in a holistic approach ergonomics. Results of research high security tools to public vehicles that high-security vehicle users generally by body dimensions as a powerful than Knee-and-a-half was knee, long your feet, and your elbow kelantai. While utilities yangbernilai ergonomics was the first and second around 24.76 cm and 49.53 cm, wide around 24.25 cm and was hangar 104, 78 cm.

Keywords - anthropometry, ergonomics, utility vehicle.

I. INTRODUCTION

Transportation means Public Transport in Makassar City should be made with implementing aspects promotes ergonomic comfort, but it does not apply in means of transportation to the public. The Awards for human values in general appears to be still second position after the economical. So that in many things were still many found in humanity does not serve as a reference point is important in the process designed to build.

The problems that are in this research is about public vehicles that are in the Makassar city . The initial research first problem security on public vehicles on access up and down than 36 cm to 43 cm, 16 cm wide steps up to 22 cm and was in rows 22 cm to 36 cm, while than hangar doors 124 cm up to 139 cm, the distance between the road to the stairs high enough so that body posture passengers who have a smaller will have difficulty was limited ability of man,

In a study or that you want to achieve is a tool public vehicles public transport vehicles to be safe and convenient to use methods keergonomian. While in high- formulation of problems then, or 1. To examine dimensions body body as a powerful tool for security vehicles, 2. To examine the public vehicles that high-promotes ergonomic comfort.

II. LITERATURE REVIEW

2.1 Strategic Issues facilities and Infrastructure

Public transport system essentially hardware was formed from a group (hardware) page which consists of infrastructure and systems, Next facility hardware components second was operated with the system software operations or system which consists of these components such as: frequency and tariffs. Component of infrastructure and transportation general itself, among others, public transport infrastructure component, which covers, the system network of routes, the terminal, track along the right of way from each route, bus stops. Components means angkutan general, on. Types of vehicles that used and the dimension and design vehicles (that Dedi's. S).

2.2 Ergonomic Principles utility vehicle

The main objective man to make changes design all the equipment is to make it easier for operational and put on its usage. Discipline scholarly was born and evolved around 20th century this related to design equipment and facilities that implementing the human aspects as pemakaiannya known then with the name *Ergonomics*.

The application ergonomics in general is hostile activities (*design*) or re-design (*redesain*). This may be on hardware items such as work (*benches*),

platform, the seats are, the position means safety, management control system, teaching aids, road/tunnel, the doors, windows, etc. are still in the matter is a detailed engineering discussion menegenai working environment, because if the system hardware as it will change in the workplace.

III. RESEARCH METHOD

Research was done in the Makassar City in terms of utility vehicle is not optimal in public vehicles. Population and samples or is users public transportation, the vehicle tools for school children, the students, officials and private and public transport passengers.

Data collection done directly to the comfort and security in public vehicles especially in the access up and down, was household, wide domestic workers, was in rows and was hangar doors.

After data, then continued with the trial statistics

- The trial uniformity data said uniform when data is between border controls and the borders As Under control by using a confidence level of 95 percent and high precision 5 percent.
- Adequacy Test data, it would be useful to know enough data or not with conditions $N' < N$, with a confidence level of 95 percent and high precision 5 percent.
- 5th percentile test-th, 50-year and 95-years old, it would be useful to get the dimension body in accordance with the value ergonomics.

IV. RESULTS AND DISCUSSION

4.1 Results of research

To obtain anthropometric measurement that promotes ergonomic comfort and body dimensions as a powerful tool to vehicles: than Knee (TL) and (1/2 TL) measured from knee to kelantai for than ladder 1 and 2 feet long, (Currently PKT has served ship necessity in) is measured from heel to toe the ends, and square kelantai (Tue) measured from hangar to the floor, then counted with test statistics. trial uniformity data used a confidence level of 95 percent and high precision 5 percentil, data uniform and testing adequacy test data, $N' < N$ reflect data is enough.

Testing persertil used percentile 5th, 50 year and 95-years old. As can be seen in table 3 below:

Table 1 . Test resultth percentile anthropometry.

No.	Dimension The body	The promotes ergonomic comfort, Anthropometric (cm)		
		5-Th	50-Th	95-Th
1	Elbow to the floor	97.66	101.22	104.78
2	High knee	45.47	47.50	49.53
3	-And-a-half was knee	22.74	23.75	24.74
4	Long-term your feet	22.75	23.75	24.25

Measurements large and small, which is generally applied is to make the medium-sizedth percentile 5-50th percentile th, th-95th percentile and th as a reference to each of them to those are small and big facilities that are designed so that it can be used in a safe and convenient (*Iftikar z. Sutalaksana, 2006*). testth percentile anthropometry, as the reference in the design tools public transport vehicles in the Makassar City, namely:

1. Dimension to hangar dimensions, body that is used Elbow to the floor, 95th percentile that used to th = 104.78 cm.
2. Size for household was first, the dimensions body that used-and-a-half was knee , which is used 95th percentile th= 24.76 cm.
3. Size for household was second, the body that is used, knee, 95th percentile that used to th = 49.53 cm.
- 4.Dimension to wide domestic workers first, the dimensions body that used Long feet, 95th percentile that used to th = 24.25 cm.

4.2 Discussion

High promotes ergonomic comfort tools public vehicles to the security vehicle users generally, than hangar 104.78 cm, was the first and second around 24.76 cm and 49.53 cm, wide around 24.25 cm which means that users at the time step forward to the steps first and second easier because it has been adapted the function of the body to utility vehicle. While previous research result *Anthropometric community getting worse obtained from interpollation community British and Hong Kong (Pheasant, 1986) against Indonesian society (suma'myrrh, 1989) and the term dimensionalnya from (Nurminanto, 1991)*. size than hangar door-dimensional dugunakan body was square 107.4 cm high knees that increased by 54.4 cm that were made as was around 2, while big feet as a reference for wide domestic workers, 26.6 cm based on the results of research *anthropometric previous legs of the Indonesia has obtained from interpollation Dempster (1955), Reynords (1978), and Nurmianto (1991)*. Different from what is produced by investigators body posture disebabkan because a different regions.

V. CONCLUSION AND SUGGESTION

5.1 Conclusion

The conclusion in research study security and comfort tools public vehicles that high-ergonomics are:

1. Dimensions body which have an effect on to household was first, second and wide domestic workers are knee kelantai, was the first steps is half knee kelantai, long-term your feet as a reference for wide domestic workers, and square kelantai as than hangar.

2. High security tools public vehicles that high-promotes ergonomic comfort to the security vehicle users generally, was the first and second around 24.76 cm and 49.53 cm, wide around 24.25 cm and was hangar 104.78 cm.

5.2 Today's Question and

1. Should public vehicles that are in the Makassar City to have attention, where many vehicles that are not appropriate in keergonomian.

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