Ergonomic situation in Thailand
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Thailand has a rapid change from agricultural country to industrializing country during a past decade. According to the statistical data from Ministry of Industry, number of factories has been increasing from 85,055 in 1985 to 87,221 in 1987. But some knowledge and technology are not compatibly developed simultaneously. There are many problems on working conditions that are not coped with in time. Of course ergonomic problem is one of those. Moreover, ergonomics is a new subject included in occupational health and still unknown in general population. At the same time, the number of experts in this field is considered inadequate compared to present problems.

All large factories in Thailand are well-planned before establishment and still maintained in good condition. In addition, entrepreneurs can facilitate their workers by many services namely; housing, canteen, drinking water, recreation etc. So it is considered that serious problems on working conditions in large factories are fewer than those in small factories. Unfortunately, 98% of all factories are small scale factories (<100 employees) where almost employees were farmers or villagers before. In order to earn more money, they moved to the city and found job in the factories. From this point, their life style has changed from common jobs to be complicated ones with different working environments. In fact, they do not have any background or knowledge on industrial health or ergonomics. Moreover, urbanization has become more serious problem because of a large number of immigrants to the city, leading to socio-economical problem. Finally, both physiological problem from inappropriate work and psychological problem from different ways of life and work happened unavoidably.

Fig.1 Furniture & woodcraft workplace

As stated that ergonomic experts are very few, specialized research is also few. However, ergonomic survey (1) had been carried out in 1986 and found out that problems relating to ergonomics were found to be most frequent as shown in figure 3.
Another interesting survey (2) was carried out by Holmer et al. (1985) on ergonomic problems and also found out that ergonomic problems existed in most factories surveyed, including support when seated, body posture, local muscular strain, organization of workplace, heavy work load, fixed position and repetitive work as shown in figure 4.

These surveys support that immediate improvements are possible in the design of workstations, organization of the workplace and ergonomic guard against cutting machinery and other injury risks as well as in the lay out of machines and passage ways. These improvements are likely to increase productivity since the problems are strongly decreasing productivity. In addition, introduction of ergonomics is urgently needed for workplace inspection. It is possible to be added to the general safety and hygiene inspection. Health education on ergonomics is also necessary for both employers and workers in order to understand and recognize the importance of ergonomic program in workplace.

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References
