ABSTRAK

Saat ini perusahaan sedang melakukan *project new model* sehingga menambah *line* baru untuk menunjang proses produksi, perusahaan berusaha mengoptimalkan *project* ini tanpa menambah banyak pekerja tambahan. Pekerja yang ada sebelumnya ditempatkan pada *line* baru menyesuaikan kebutuhan produksi. Dengan adanya *line* baru tersebut masih banyak penyesuaian yang harus dilakukan perusahaan untuk menghindari waktu menganggur yang sangat lama untuk setiap operator dalam melaksanakan pekerjaannya. Dalam penelitian ini konsep penyeimbahan lini diterapkan pada proses *side member lh* di PT Toyota Motor Manifacturing Indonesia. Konsep penyeimbangan lini dilakukan dengan metode *ranked positional weight* dan *killbridge wester*, konsep penyeimbangan lini diterapkan pada proses SUV dan VAN untuk menyesuaikan proses *new model* . Hasil penelitian menunjukkan metode RPW terpilih. Pada proses SUV efisiensi lini mencapai 83%, *balance delay* 13%, *smoothnes index* 157.5 dan *membutuhkan man power* 8. Dan proses VAN efisiensi lini mencapai 90%, *balance delay* 10%, *smoothnes index* 163.9 dan membutuhkan *man power* 4 .

Kata kunci : *line balancing*, efisiensi, *idle time*, *ranked positional weight*, *kilbridge wester*

ABSTRAK

Currently, the company is doing a new model project that adds a new line to support production and is attempting to optimize the project without adding more workers. The existing workers were placed on new lines to adjust production needs. With the new line, there are still a lot of adjustments for the company to make in order to avoid prolonged unemployment for any operator to do his job. In this study, the concept of ratifying lines is applied to the side member process at Indonesia's Toyota Motor Manufacturing. The concept of balancing is done by weight positional methods and Killbridge Wester, and the concept of ratifying the lines applies to SUVs and vans to adjust new model processes. Research showed the preferred RPW method SUV processes were 83% efficient on our line, balance delay was 13%, smoothness index was 157.5, and manpower was required at 8. And the efficiency of van processes reached 90%, loads had a 10% delay, the smoothness index was 163.9, and manpower was 4.

Keywords : *line balancing, eficiency, idle time, ranked positional weight, kilbridge wester*