ABSTRACT

PT. Kayaba Indonesia is a manufacturing company that produces shock breakers for 2-wheel vehicles and 4-wheel vehicles. One of the two-wheel shock breaker products is the shock breaker upside down (USD) BK-6. The demand for shock breaker USD BK-6 in April is 6,400 sets while the current production is 5,346 sets per month. The production load of shock breaker USD BK-6 is in machining process of axle bracket. The machining process of axle bracket BK-6 takes place in line 10 using 2 pieces of CNC robodrill machine and one cleaning machine.

Efforts to improve the production process of axle bracket BK-6 through the addition of production machine that is one robodrill CNC machine. The addition of production machinery causes the re-layout of production line, the production of base rotary, and the planning of new production process.

The results of the improvement process show an increase in production amount to 8.910 sets per month. The increase in the production amount causes the process waiting time to be reduced to 28 seconds while the machining cycle time is reduced to 150 seconds per set.

Keyword: CNC robodrill, base rotary, layout, machining process

INTISARI

PT. Kayaba Indonesia merupakan perusahaan manufaktur yang memproduksi *shock breaker* untuk kendaraan roda 2 maupun kendaraan roda 4. Salah satu produk *shock breaker* roda dua yaitu *shock breaker upside down* (USD) BK-6. Permintaan *shock breaker USD BK-6* bulan April yaitu 6.400 set sedangkan produksi saat ini yaitu 5.346 set per bulan. Beban proses produksi *shock breaker* USD BK-6 berada di proses pemesinan *axle bracket*. Proses pemesinan *axle bracket* BK-6 berlangsung di *line* 10 dengan menggunakan 2 buah mesin CNC *robodrill* dan satu buah mesin *cleaning*.

Usaha untuk meningkatkan proses produksi *axle bracket* BK-6 melalui penambahan mesin produksi yaitu satu buah mesin CNC *robodrill*. Penambahan mesin produksi tersebut menyebabkan adanya *re-layout line* produksi, pembuatan *base rotary*, dan perencanaan proses produksi yang baru.

Hasil dari proses *improvement* menunjukkan peningkatan jumlah produksi menjadi 8.910 set per bulan. Peningkatan jumlah produksi tersebut menyebabkan waktu tunggu proses berkurang menjadi 28 detik sedangkan *cycle time* proses pemesinan berkurang menjadi 150 detik per set.

Kata kunci: CNC *robodrill*, *base rotary*, tata letak, proses pemesinan