

ABSTRACT

Unique die is an important component in die casting machines for molding molten aluminum into cylinder block engine NR products. The role of maintenance carried out by the section die maintenance of unique die is needed to keep optimal unique die function. There is one unique die maintenance method, namely preventive maintenance.

The duration of preventive maintenance activities has certain standards set in the die maintenance section. According from the data there is a difference in the excess duration of the actual implementation of the standard time. In this research, an analysis of the difference between the duration of actual and standard implementation is explained by applying the Toyota Business Practice method so as to find the root of the problem and overcome it. From that method, the root of the problem is the lack of preventive maintenance scheduling so that parts procurement experiences delays.

Based on these problems, a proposed countermeasure effort was made by creating a Microsoft Excel-based preventive maintenance scheduling system and web-based software development. With the proposed idea, it is expected that in the next activity it can be implemented or as a material consideration in overcoming the problem of stock parts for unique die preventive maintenance activities.

Keywords : preventive maintenance, Toyota Business Practice

INTISARI

Unique die merupakan komponen penting dalam mesin *die casting* untuk mencetak aluminium cair menjadi bentuk produk *cylinder block engine NR*. Peran perawatan yang dilaksanakan oleh *section die maintenance* terhadap *unique die* sangat dibutuhkan untuk mempertahankan fungsi *unique die* yang optimal. Terdapat salah satu metode perawatan *unique die*, yaitu *preventive maintenance*.

Durasi kegiatan *preventive maintenance* mempunyai standar tertentu yang sudah ditetapkan pada *section die maintenance*. Menurut data terdapat selisih durasi berlebih pada aktual pelaksanaan terhadap standar waktu. Pada penelitian ini dijelaskan analisa terhadap selisih antara durasi aktual pelaksanaan dan standar yang sudah ditetapkan dengan menerapkan metode *Toyota Business Practice* sehingga menemukan akar permasalahan dan upaya penanggulangannya. Dengan metode tersebut, diperoleh akar permasalahan karena tidak adanya penjadwalan *preventive maintenance* sehingga pengadaan *part* mengalami *delay*.

Berlandaskan permasalahan tersebut, dilakukan usulan upaya penanggulangan dengan membuat sistem penjadwalan *preventive maintenance* berbasis *microsoft excel* dan pengembangannya berbasis *web software*. Dengan usulan ide tersebut diharapkan kedepannya bisa diimplementasikan atau sebagai bahan pertimbangan dalam penanggulangan permasalahan persediaan *part* untuk kegiatan *preventive maintenance unique die*.

Kata kunci : *preventive maintenance, Toyota Business Practice*