

ABSTRAK

Tingkat cacat produk proses *Remanufacturing Lift Arm* tergolong tinggi yaitu 41,73% selama 5 bulan terakhir. Persentase cacat berfluktuasi dari waktu ke waktu. Cacat tertinggi terjadi pada W3 Maret 2019 sebesar 58,3% Tingginya jumlah cacat menyebabkan *COPQ* sebesar Rp 650.800.000. Nilai *DPMO* dan nilai *sigma* selama bulan Januari - Mei 201 adalah sebesar 208646,6 dan 2,31. Pengendalian kualitas dilakukan pada *Remanufacturing Lift Arm* di perusahaan untuk mengetahui faktor penyebab defect miss allighment dan *porosity* beserta usulan perbaikan untuk mengurangi tingkat cacat pada produk tersebut. Pendekatan *Six Sigma* dengan metode *DMAIC* merupakan metode sistematis yang berfokus pada perbaikan proses. Dari metode *DMAIC* dapat diketahui faktor-faktor penyebab *defect miss allighment* dan *porosity* melalui diagram sebab akibat dan *5W +1 H*. Usulan perbaikan yang dapat diterapkan untuk mengurangi tingkat cacat antara lain penggunaan jig pada proses *welding* dan *machining*, standarisasi parameter, standar operasional prosedur. Pada tahap control periode Juli – November 2019 terjadi perbaikan kualitas dengan nilai *DPMO* dan nilai *sigma* sebesar 35190,6 dan 3,31 dan *COPQ* Rp 58.700.000

Kata Kunci : Pengendalian Kualitas, Tingkat Cacat, *Six Sigma*, *DMAIC*

MERCU BUANA

ABSTRACT

The defect rate of Lift Arm Remanufacturing process products is relatively high at 41.73% for the past 5 months. The percentage of defects fluctuates from time to time. The highest defect occurred in W3 March 2019 at 58.3% The high number of defects caused COPQ of Rp 650,800,000. DPMO value and sigma value during January - May 201 are 208646.6 and 2.31. Quality control is carried out at Remanufacturing Lift Arm in the company to determine the factors causing defect miss allignment and porosity along with proposed improvements to reduce the level of defects in the product. The Six Sigma approach with the DMAIC method is a systematic method that focuses on process improvement. From the DMAIC method, it can be known the factors that cause defect miss allignment and porosity through cause and effect diagrams and 5W +1 H. Proposed improvements that can be applied to reduce the level of defects include the use of jigs in welding and machining processes, standardization of parameters, standard operating procedures. In the control phase of the period July - November 2019 there was an improvement in quality with a DPMO value and a sigma value of 35190.6 and 3.31 and a COPQ of Rp. 58,700,000.

Keywords : Quality Control, Defect Rate, Six Sigma, DMAIC

MERCU BUANA