ABSTRACT

PT. XYZ is one of the companies engaged in maintenance, repair and overall overhaul of aircraft engines and industrial machinery in Indonesia located in the city of Bandung. During 2017, PT. XYZ always experienced delays in the completion of the TPE engine repair due to unavailability of spare parts in the stockroom. One of the causes is the uncertainty of lead time for ordering spare parts from vendors. Therefore, it is necessary to propose a policy to supply TPE engine spare parts, especially the turbine to determine the optimum order quantity. Thus the stockout problem due to uncertainty in lead times can be minimized so that it can increase the fill rate and minimize total inventory costs. This study proposed a turbine part, part of TPE engine spare part, inventory policy using the continuous review (s, Q) method with poisson and laplace distribution in modeling demand lead time to determine the reorder point value and optimum size lot ordering. The calculation results of the proposed inventory policy with the continuous review (s, Q) method with poisson and laplace distribution in modeling demand lead time can minimize inventory costs by 60% and increase the fill rate by 30%.

Keywords : Inventory policy; spare parts; MRO – *maintenance, repair and overhaul; Continuous review* (s,Q)*, fill rate.*