

Abstract

The objective of this research is to improve the efficiency of the price estimation for blank and pierce die for sheet metal parts in agricultural machinery product. Firstly, the historical data of the approved blank and pierce die prices are collected from the suppliers that produce the parts for the studied manufacturer. Then, the factors that effect on the die price estimation have been studied and analyzed. These factors are such as machine type and capacity, guide post layout, weight of die set and thickness of sheet metal. From the analysis of these factors and historical data, the two proposed method to standardize blank and pierce die prices have been developed. The first method is to standardize the price by breaking down the components of each die and estimate the price based on its components. The second method is to use the economic index to normalize the approval price for the former blank and die price to estimate the price for the similar blank and pierce die set. The results show that the first method had less variation and more accurate in estimating the actual blank and pierce die prices than the second method. The studied manufacturer can also apply the first model to standardize other types of dies. To make the price estimation standard more accurate, the company is suggested to collect more data concerning about the die price continually and systematically.