填料箱盖机械加工工艺规程及夹具设计

摘 要

现如今，在机械领域与加工相关的工艺设计是指研究零件的工艺特性和加工工艺以及加工所需的专用夹具的设计的学科。在实际加工过程中应具有科学理论依据以及能够实现大量加工的特点。本篇论文主题主要是应用于填料箱盖这个零件的结构与工艺分析，工艺规程以及设计一套新的加工工艺等。它是在满足不改变零件的所需功能的基础上，以尽可能的降低加工成本为基准，从而优化整个加工工艺。本次设计的目的主要是：制定填料箱盖新的加工工艺规程。通过合理的分析填料箱盖的零件结构特点，详细的分析并制定加工路线并且选择加工所需的机床，夹具，量具，刀具等以及设计出部分工序的专用夹具，让这套加工方式可以实现并且做到优化。本次课程设计图纸包括零件图，毛坯图，工艺流程图，两套夹具零件图，两套夹具零件装配图。

关键词：填料箱盖；加工工艺；夹具设计

Abstract

Nowadays, in the field of machinery, the process design related to machining refers to the study of the process characteristics of parts, machining process and the design of special clamps required for machining. In the actual processing process, it should have the characteristics of scientific theoretical basis and the ability to achieve a large number of processing. The theme of this paper is mainly applied to the structure and process analysis of the packing box cover, the process specification and the design of a new processing technology, etc. On the basis of meeting the requirement of not changing the function of the parts, it optimizes the whole machining process by reducing the machining cost as much as possible. The design content of this seasoning box cover mainly includes is to develop a new processing procedure for the stuffing box cover. Through the reasonable analysis of the structural characteristics of the parts of the stuffing box cover, the detailed analysis and formulation of the processing route and the selection of the machine tools, jigs, measuring tools, cutting tools, etc. needed for processing, as well as the design of the special jigs for some processes, this set of processing mode can be realized and optimized. The design drawings of this course include parts drawing, blank drawing, Process flow chart, part chart of two sets of special fixtures and two sets of parts assembly drawing.

Key words: stuffing box cover； processing technology； fixture design

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