APPLICATION PATTERN AND MOULD OF HOLDER PENDULUM IMPACT TESTER MACHINE CHARPY TYPE HUNG-TA 8041A USING SAND CASTING

Name : URZA RAHMANDA
NRP : 2110030018
Major : D3 TEKNIK MESIN FTI-ITS
Conselor Lecture : Ir.Eddy Widdyono,MSc.

The hammer holder for impact testing is used for resisting worm gear that receive moment load when the hammer is lifted in starting position. If the holder is broken, so the lifting process will be held normally. This matter will be difficult for the operator, if there is so much specimens that will be tested. Because the weight of the hammer itself is 13.5 kg. This holder replacement is needed in order that the automation of this impact testing machine will working perfectly.

Holder is made from 3.4 % carbon, cast iron using sand casting method with silica sand as the main medium. Dimension and pattern geometri is planned as the tolerances that needed. The gapping system is designed with consideration of the steel melting flow and the ability for filling the moulding space perfectly.

According to the casting result, it known that the cast is having dimension divergence although in the planning is appropriate. This is caused by an errors in creating the mould so that will increase the machining process.

Keyword: holder, impact tester, pattern, mould, dimension