MAKING PROCESS AND WORKING SYSTEM OF CUTTER HOUSE AT GRASS CUTTING MACHINE

By :
Akhmad Latif kurniawan
09508134025

ABSTRACT

The purposes of this finally project are : (1) knowing kind of material that used to produce cutter house that appropriate with our necessity; (2) knowing the sum and dimention of material that used to make cutter house at grass cutting machine; (3) knowing the equipment that used to make cutter house at grass cutting machine; (4) knowing the making process of cutter house at grass cutting machine; (5) knowing the result of geometry test, functional test, and working test of cutter house at grass cutting machine.

The making process of cutter house could do with some methods : (1) identificated kind of material that used to make cutter house; (2) determined kind of material that used to make cutter house; (3) determined kind of equipment that used to make cutter house; (4) explained the making process of cutter house; (5) explained the specification of geometry test, functional test, and working test of cutter house at grass cutting machine.

The result of vickers hardening test was 190,36 kg/mm^2. Then that result included in Brinell hardening test. Finally the result of hardening test got 180,85 kg/mm^2. That material had 3,5% element of carbon, therefore this material included in medium carbon steel. Firstly material dimention of cutter house was Ø 125 × 16 mm. The making process of cutter house comprised some phases : (1) turning process that comprised facing, center drilling, hole drilling, inside turning, and finishing; (2) boring process that comprised hole drilling process of metris thread M 12 x 1,75 mm; (3) taping process for metris thread with dimention M 12 x 1,75 mm; and (4) bench work process as finishing process from taping process with dimention M 12 x 1,75 mm. From the geometry test, cutter house fulfiled from standart dimention. That dimention was Ø 120 × 15 mm with thread hole M 12 x 1,75 mm. Cutter house was made as supporter and manager of cutter house circle, until the cutter could move go up and go down. That moving of cutter had a function to cut the grass. The result from working test, this grass cutting machine could cut the grass with same dimention. That dimention approximate 3 cm. And the machine had cutting capacity with 134 kg/hour.

Key Words : cutter house, grass cutting machine