THE BRONZE-PLATING TECHNOLOGY OF ACME THREADS FOR MOVING NUTS.

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The paper refers to nuts with plated thread and to a procedure tool for the execution of these nuts, with trapezoidal or square thread, plated with higher bronze, that are used for the leading screw-nut assembly for machine tools, as well as for machine building, where there are required these kind of assemblies.

For avoiding the sealing of the melted bronze at the frontal ends of the covers, other procedures and equipment of bonze plating the steel bushings use asbestos packing or the frontal end of the covers is chrome-plated.

The disadvantage of this procedure is that the asbestos packing are easily destroyable and their attachment on the covers is quite difficult, and chrome-plating is an expensive procedure and allows only a few number of re-using it, after which rehabilitation is needed.

The purpose of the paper is execution of movement nuts of steel instead of bronze, observing the quality of the surface and lubrication degree of the thread by plating it with a thin layer of bronze of high quality.

The problem our paper deals with is plating with bronze the steel tubular supports threaded inside with greater thread than normal and having trapezoidal or square profile, for movement screw nuts used for the leading screw-nut assembly and for other nuts of this kind. The plating of the thread is partial or complete.

The nuts with plated thread - procedure and tool for execution offer the following advantages:

-simple and can be easily applied in industrial conditions;
-reduces the consumption of higher bronze up to 80 – 90 % depending on plating process;
-provides compact parts, without air and gas holes, slag inclusions and sponginess;
-can be adapted to the equipment used for manufacturing bimetal bushings;
-depending on the nut's length, can be machined 1-2-3 nuts at the same time, by coupling or combining the steel threaded supports, for identical or similar nuts;
-reliability and durability during working.

Herein after is an example of execution:

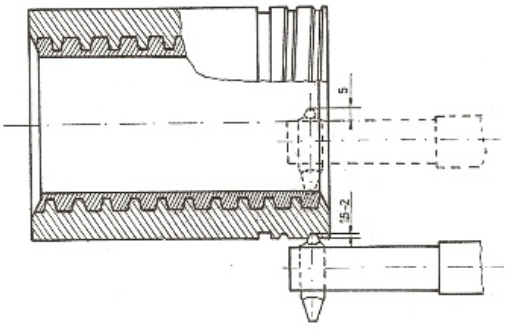

Fig.1.
Longitudinal section with partial view of the plated thread and of positioning thread, and of the double cutter used for positioning and machining.

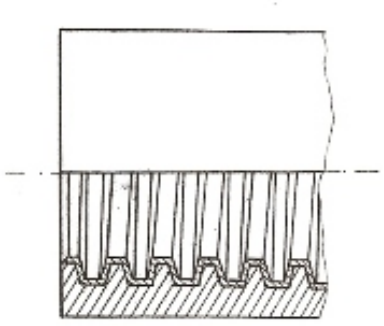

Fig.2.
Longitudinal section with partial view of a nut with the thread completely plated.

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