ADAPTIVE COMMAND SOLUTION FOR THE CIRCULAR SAW FCA- 810 M

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Adaptive command in comparison to the MU programmed command, intends to establish the splinting regime parameters (all or some of them), in real time, all the time, during the working process and according to the data initially introduced into the system and to the data received from the splinting process.

A CA solution was established; this is represented by the measurement of the active power of the electric engine which runs the cloth-disk and its comparison to a reference active power from a comparison element (computer). The electric signal resulted after the processing from the comparison element is used for the adjustment of the advance speed, in such a manner not to exceed the maximum pressure per tooth.

In this manner, we can ensure the maximum capacity of debiting of the circular saw, without endangering the teeth of the cloth-disk.

The adaptive command has the following advantages:

- The optimization criteria which represents the basis of the strategy of adaptive command is the minimal cost of the operation, in the same time with the observance of the requirements for quality, size accuracy and roughness of the surface.
- An algorithm deducted based on the scientific methods of determination of the optimum proposed represents the basis of the functioning of adaptive command.
- Ensures the self adjustment of one or several parameters of the splintering regime so that, during the splintering, to maintain the economic optimum imposed.
- Protects the tool and the circular saw against overloads.
- Eliminates the influence of disturbing factors.

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