

Security, Health of the Worker and Environment in the Forest and Lumber activities.

"Prevention and Protection with machines"

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Belém/PA
2005

The prevention of employment-related accidents in the lumber activity of the region North of Brazil.

The great debate on the lumber activity in Brazil in special in the Amazon region until the year of 1994, if so only limited the ambient questions, leaving of side basic subjects for the development of the sector such as: formation of workmanship hand and Security and Health of the Worker.

The activities of extraction, unfolding, improvement and industrialization of the wood still are developed to a large extent with machines in precarious conditions of use, consequently, causers of innumerable industrial accidents with high index traumatic amputation.

Some equipment used in the process of extraction of the wood in the forest and also in the unfolding of logs presents potential of risk in the lumber activity, as: the group of benches buzz saws, the destopadeira, the mountain ranges ribbons and the mountain ranges multiblades.

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The inexistent one or drawn out physical lack of investments in research, installations, acquisition of new machines and equipment, allied to little specialization of the workmanship hand, has contributed for the increase of the employment-related accidents, with serious damages to the worker and the environment of work, generating wastefulness of substance cousin, damages to the environment, reing-echo negative in the image of the sector.

To diminish the mutilations caused for these machines, a Group was created Tripartite Technician - GTT, consisting of the FUNDACENTRO - Foundation Jorge Duprat Figueiredo de Segurança and Medicine of the Work, Regional Police station of the Work and Job in the State of Pará, Federacy of the Workers of the Construction and Furniture of the State of Pará, Union of the Lumber Industries of Paragominas, that together comes developing studies for the protection of these machines, with the support of the Metallurgic Industry Bittner Ltda and consultoria technique of the Federal University of Pará. The GTT also counts on the legal support of the Public prosecution service of the State of Pará, that takes the celebration of Terms of Agreements between the parts.

The group of benches buzz saw, for being the causing equipment biggest of accidents, was the first machine to receive a device from protection. The results are expressive how much to the reduction of the workers caused an accident in the cities where they had been installed.

This device already was presented to the commission On the same level Tripartite Technique of the Ministry of the Work and Job to be regulated through an annex of NR 12 of Security and Medicine of the Work, to be fulfilled in all domestic territory. Giving continuation to the studies of protection of machines of the sector, in 2002 studies directed toward a device of the destopadeira buzz saw had been developed, also very used in

would saw them and with great incidence of cases of industrial accidents with mutilation and amputation of members of the workers, after presentation of two models, the commission opted in approving the model that more if adapted the existing mountain ranges and of low cost, resulting in the great acceptability and immediate application in all the used machines in you would saw them, in special of Paragominas, in Pará, polar region of studies and research of the archetypes.

I - Considerações initial on the studied machines:

The machines used in the lumber industries in its great majority, present potential risks that take the serious accidents with mutilations when it has the accidental contact with the mobile parts of these equipment.

In photos 01 and 02 one verifies the improvisations and until absence of protections of the mountain ranges, in special circular them of group of benches and the destopadeiras.



Photo 01 - Group of benches buzz saw



Photo 02 - Destopadeira buzz saw

II - Factors that contribution for the occurrence of these accidents:

- ✚ Lack of preventive maintenance;
- ✚ Acquisition of machines without protection, in disagreement with NR 12;
- ✚ Lack of qualification technique of the operators;
- ✚ Use of sucateadas machines;
- ✚ Removal of the protections when of the maintenance;
- ✚ Absence of enclausuramento/EPC.

III - Protections approved with the minimum requirements of security:

- ✚ It does not create risks you add, mainly levels of noise and vibration;
- ✚ It prevents wooden particle projection, also the teeth of the mountain range;
- ✚ Made of resistant material in plated steel of SAE 1020;
- ✚ They are proportional to the diameter of the mountain range record;
- ✚ It protects the mobile parts and the point of operation;
- ✚ It does not make it difficult the operation;
- ✚ It does not increase the energy great expense of the operator;
- ✚ It allows to adjustment and lubrication;
- ✚ It supports impact of until 18Kg/cm²;
- ✚ It presents process of welding of continuous form.



Protection of the secondary buzz saw



Protection of the destopadeira buzz saw



Protection of the buzz saw **Principal**