

**#7 Particleboard** Sander smoothing bars  
SierraPine Limited, Springfield Particleboard and Ply Veneer Divisions

**Problem**

Our Ergonomics Task Force (initiated as part of our SHARP certification process) chose our Kimwood 8 head, 5 foot wide sander as an area where there is potential for injury due to poor ergonomics. The group evaluated work practices at the sander by video taping activities where operators perform physical tasks, and reviewed the tape in a group setting. From this, the removal and installation of 80 pound smoothing bars (as seen in the pictures) was identified as the task with the highest risk for injury.



**Solution**

After reviewing the tapes, the task force, initially without the involvement of the operators, discussed options for improvement. Several options were brought forward, including the fabrication of a stand, a hoist, a sling/hanger system, and the requirement to get help before attempting the task. These suggestions were taken to the operators, other than asking for help, all were immediately rejected. The task force then changed their approach and asked for operator involvement. As a result, the idea of reducing the weight of the bar by using different materials, such as aluminum in place of steel, was suggested. The ergonomics task force, sander operators and management agreed it was worth a trial.

A new bar was fabricated by our maintenance crew. The bar was installed and run through normal sander operations with no adverse results. The weight of the bar was reduced by 50%, down to 40 pounds. This is a much more manageable weight. The response from the operators has been very positive. They feel as though the solution, that they helped make possible, has made bar changes easier, effectively reducing the risk of injury. Also from this, the first area tackled by the ergonomics task force, an important lesson was learned: Involvement of the operators from the beginning is crucial to the success of the project.

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**Participants**

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**Sander Operators:** Pete Agular, Pat McColligan, Curt Newell, Don Williams