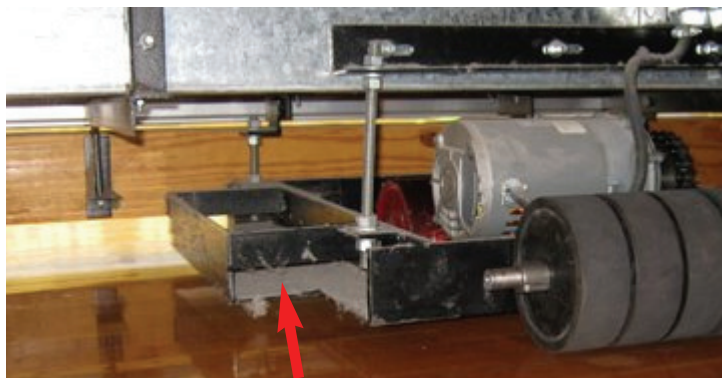


## Case History: Delaminating Drive Rollers

***Problem:*** Bleachers that used to open and close smoothly when they were new, now are “sticking,” “shaking” and sometimes “making a funny noise,” and marking the floor. Instead of opening at the push of a button, the bleachers would require additional personnel to pull the bleacher sections to the full open position.

***Cause:*** After a number of years, these bleachers started to sag. (Sagging bleachers require more force to operate because of the friction from rows binding and rubbing on one another.) This causes drive systems to work harder, contributing to a cascade of problems and malfunctions, including delaminating drive rollers .

***Solution:*** Replace delaminating drive rollers, with new Bleacherman solid drive wheels. These one-piece wheels will not delaminate and will maintain the required 50 durometer “softness” to “grip” the floor and provide the proper traction. “Drop-in” installation allows re-use of existing components for a low cost solution. Rollers are warranted against delamination for 20 years.



Drive motor unit before being detached from bleacher understructure. Note empty space to left of motor. This should have weights.

### SITUATION OVERVIEW

Electric motors, metal frames and gear drives were functional and serviceable. Problem was the drive rollers had decomposed and were delaminating. (The synthetic urethane covering is separating from the steel rollers, resulting in a loss of traction and damaging the floor.)

Also, these motor systems were missing the counter weights that provide the downward force for traction. It appears the installer has put the attaching/adjusting screws to the extreme utmost position, thus using the weight of the first row of bleachers for downward load. Problem is, this deformed the first row of the bleachers causing them to arch or bend.

The solution: replace the drive wheels, add the proper weights, and adjust the attaching screws to level the first row. This would allow the bleachers to at least open and close, without burning out motors or damaging the floor.

The next step in achieving long-term trouble-free operation would be to add the Century Design® no-sag system. Bleacherman advises schools how to work within their budget, and make the most urgent repairs first, so that maintaining telescopic bleachers remains a manageable expense.



Delaminated drive roller. The urethane covering has peeled off, leaving a bare steel cylinder. This will damage the floor, whether wood or synthetic. (\$\$\$\$)



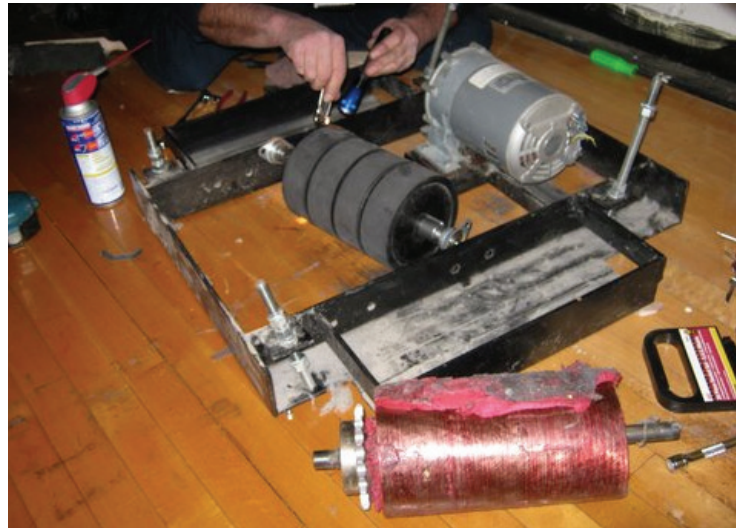
Another view of a completely delaminated drive roller. .



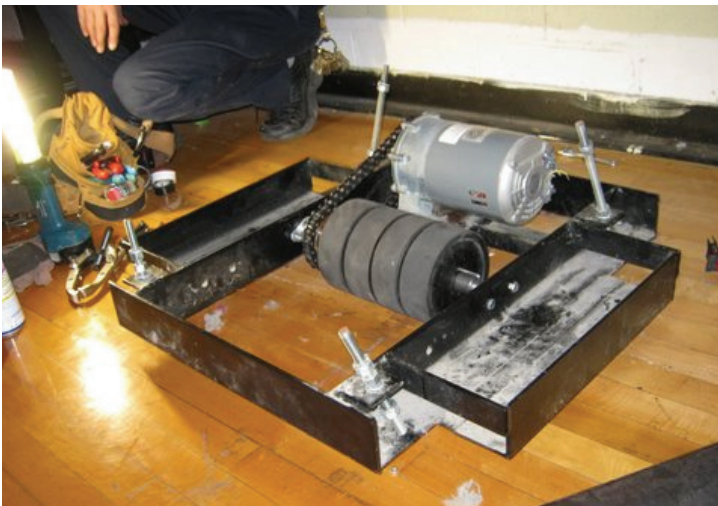
This drive roller shows how the urethane covering is peeling away from the drive roller.



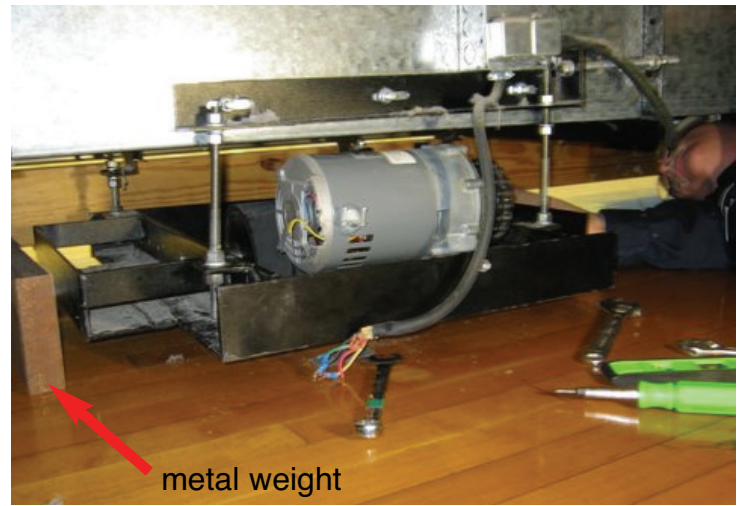
Here the delaminated drive roller has been removed from the motor drive frame



Bleacherman drive wheels being installed by owner's personnel. We provide instructions - special expertise is not required.



Bleacherman solid drive wheels installed in place of metal drive roller. Shafts are machined for "drop-in" installation, reusing the original frame, motor and gear drive.



Motor drive being re-installed in position. After attaching and adjusting, electric power will be connected and new metal weights added.

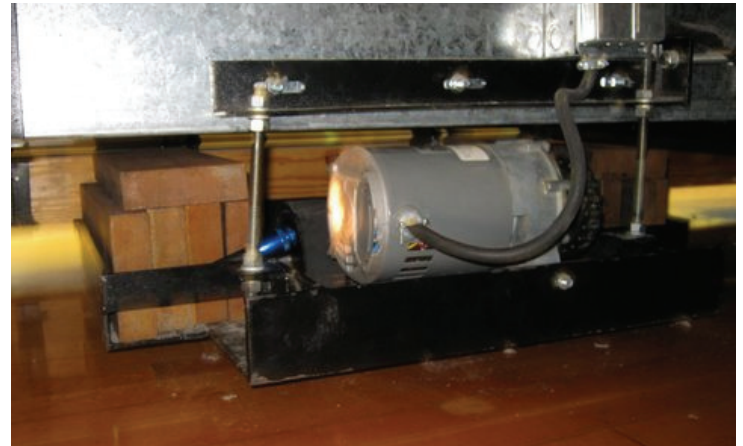
**Summary**

Bleacherman gives the bleacher owner a choice - simply buying the same steel rollers with synthetic coatings as a replacement, would result in the same expensive problem in the future. We offer a choice that permanently fixes the problem.

Bleacherman works with the owner to find a solution that fits your budget. It's part of our service -- we provide advice on short *and* long-term solutions.

Bleacherman makes solid drive rollers for replacement parts that fit all major telescopic bleacher manufacturers. There are many different kinds of motor systems, from friction drive to non-friction drive. Replacement parts and corrective apparatus for virtually any motor drive can be obtained from the Bleacherman - even for those no longer in business.

Bleacherman provides hard-to-find parts from our



Installation is complete.

extensive inventory of replacement parts. Our machine shop can fabricate custom replacement parts as needed.

Please contact us with your special parts needs - call toll-free 800-628-1332.