

*The following is an excerpt from WSN's Safe Skidding, a reference manual for cable and grapple skidder operators*

## Dealing with Problem Trees

Despite the best efforts and safe practices of cutters, trees sometime become hung-up in other trees, lean in the wrong direction, or partial cuts become setbacks and pinch a chainsaw in the cut, making it impossible to remove the blade.

**All problem trees must be eliminated from the worksite, along the skid trail, and near the landing.**

Skidder operators are often called upon to help bring down problem trees either at the cut site, along the skid trail or at the landing. All these situations have specific hazards that can cause serious injury or death to the skidder operator or other workers nearby if not dealt with properly.

Remember, you aren't expected to have all the answers to problem-tree situations. When in doubt, call in the supervisor or others to discuss options and decide on the safest way to approach a problem tree. Here are some general rules and descriptions of safe practices to follow when dealing with problem trees.

**Danger zones:** Always make sure other workers are clear of the danger zone before moving the skidder to deal with a problem tree. Remain in the cab to operate the skidder and beware of falling branches, limbs and portions of tree trunk. Make sure you know where the tree will fall. Check out a radius around the tree equal to the height of the tree. Use caution near access roads and overhead wires.

**Push or pull—leaners and hang-ups:** Smaller trees that are hung up, lodged or snagged can often be pushed over in the direction of the lean (if that is the desired direction) by slowly backing up to the tree and pushing slowly in the direction of the lean with the fairlead. Larger trees and trees that need to be felled in a direction away from the lean can sometimes be pulled down using the cable. They may or may not be partly notched and/or back-cut. Watch out for falling branches and stay inside the cab.

Sometimes it is necessary to pull the tree down with the cable and winch. Approach the tree backwards from the direction away from the lean. Attach the cable around the trunk of the tree at the base. Place the winch in free-wheel position and slowly drive the skidder away until more of the mainline is out than the height of the tree. Slowly winch in the mainline, allowing the tree to fall in a direction away from the skidder (into the lean).

**Setbacks:** Sometimes a partially-cut tree will settle back onto the cut and pinch the saw blade in the cut area. Back the skidder in slowly to the tree and using the fairlead, carefully push the tree over and drive away. Do not allow the cutter anywhere near the operation, particularly not to reach between the skidder and the tree trunk to retrieve the saw. If the cutter is concerned about damage occurring to the saw, the bar can be detached from the engine and the engine portion removed before the skidder lines up.

**Chicots:** Among the most common and dangerous problem trees are chicots—a standing tree or branch that is wholly or partly dead. The dry, brittle or rotted branch, tree top or trunk can fall without warning. All chicots in the area of cutting, skidding and landing must be knocked down. Most can be handled by the feller or

the mechanical harvester. More difficult ones can be handled by the skidder either by using the fairlead in the slow push technique or by winching after the cutter has carefully notched and back-cut the tree.

**Spring poles:** Spring poles are created when a falling tree bends a smaller tree or branch and traps it in the bent position. If the spring pole cannot be safely released by the cutter using the chainsaw, the skidder can winch the tree that's holding the spring pole or remove it with the grapple. Do not stand in the line of the spring pole when fastening a cable and make sure the cab of the skidder is not in the path of the released spring pole.

Never stand in the line of a spring pole when attaching a cable or choker to the cut log or tree holding it.

The landing area can be the busiest area of the entire logging operation. Logs and tree-length wood are piled awaiting further processing (slashing, delimiting, chipping) or stored awaiting transportation to other processing sites. The skidder operator must be familiar with the activities taking place, understand the skidder's responsibility on the landing, and be alert for hazards. Even a small landing with limited activity has many hazards.

**Entering the landing:** When entering the landing with the load, approach at a reduced speed. Ensure that all workers within the danger zone of your skidder (including workers on foot and in other machines) know you are there, and make sure they are clear of any logs that might up-end or swing from the load. Remember the tail sweep in tight turns. Watch for logs and debris that if struck by the skidder could cause chain reactions with other logs, particularly if they are partially hidden by snow or debris. Always receive clearance to proceed from other machines working in and around the skidway.

**Unloading:** The load will need to be dropped in such a way to facilitate the next operation. Depending on the circumstances, the next operation might be bucking, delimiting, scaling or loading for transportation to another site. The following guidelines for piling assume that the logs need to be piled awaiting further transportation. When you reach the area where the load is to be dropped, pull the load up just ahead and parallel to the pile or deck but remaining a safe distance from it. Logs already piled there can roll and strike the skidder operator while undoing the chokers. If starting a new pile, skid logs gathered from unmerchantable wood (chicots) should be laid out on level ground at a right angle to the load. Keep the butts off the ground to make removal of the chokers easier. The skidder drives over the skid and deposits the load on top. Lower the load briskly to separate the chokers and make untying easier.

Drive forward a short distance with the winch in free spool position to create some slack in the mainline. If another worker is available to remove the chokers, follow their signals to move the skidder or lower the load. When using a cable skidder and no other worker is available to detach the chokers, follow the procedure for parking and securing the skidder and exit the machine.