



MISSISSIPPI STATE UNIVERSITY™
MS AGRICULTURAL AND FORESTRY
EXPERIMENT STATION

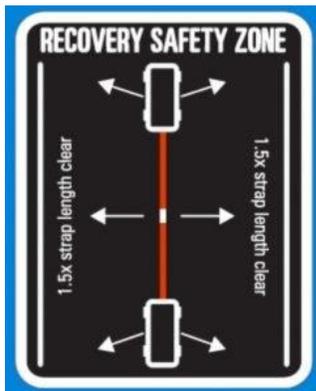
MAFES DAWG TRACKS

The lifeblood of agriculture is dirt and water. While these two are necessary for plants to grow, when mixed together they can also sometimes cause vehicles and equipment to get stuck. Admittedly, the challenge of an equipment recovery is one of my favorite things to do, but every function of it can be inherently dangerous. Safety must be of primary concern and continually practiced during the operation. Maintaining an awareness of the following key factors and actions can help prevent damage to equipment and injury to personnel.

Know recovery equipment capabilities and limitations. Know the working load limits of each chain, strap, hook, clevis or any other device used. It only takes one weak link in your recovery system to cause an accident. An overloaded component can instantly become a missile causing a terrible injury or death as it rebounds.

Establish a safe zone.

Everybody always wants to watch a recovery, but ensure people stay back a safe distance in case a component fails. After everything is hooked together, clear the zone of both helpers & watchers before the actual pull begins. If you are operating a winch, position yourself in a safe position such as inside the cab or behind the door. If repositioning is needed, in the middle of a recovery, always loose tension on the pull line before entering the danger zone.



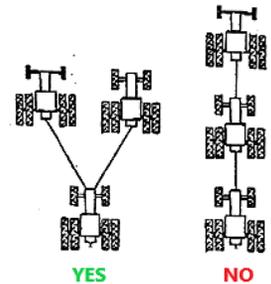
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Communicate. Don't rush to get things done – talk with each other & agree on a plan for the recovery. Discuss optional safe attachment points & connectors to use. Never assume the other person knows what you are about to do. Establish a set of simple hand signals with each other, if necessary, especially when winching or towing. Don't rely on shouting at each other. Sometimes "WHOA" or "NO" may sound like "GO".

Understand how to properly use the tools you have.

Many times, equipment recovery accidents occur from misuse or overloading of devices.

- When using more than one vehicle for pulling, hitch each vehicle independently. This prevents too much stress to the final towing vehicle & its devices.



Carefully coordinate the pulling effort simultaneously.

- Position a hook with the open part (throat) upward. If the hook should straighten out from overload, the rigging would be forced downward. Be sure D-ring shackles are oriented correctly and the pin is screwed in tight, then back off ½ turn.
- Steel winch cables should be weighed down with something like a heavy blanket, tow strap, or heavy coat before the pull to reduce rebound & whip danger should it break.
- On a tractor used for recovery, always hitch to the drawbar. On vehicles, NEVER use a trailer ball as a recovery connection point!



Sources:

<https://www.modifind.com/offroad>
<http://www.offroadsafety.org/get-out/vehicle-recovery>
<https://www.slideshare.net/RimskyCheng/warn-guide-to-safe-winchng>
<https://nasdonline.org/1151/d000945>