MAFES Dawg Tracks

December 10, 2018

MISSISSIPPI STATE UNIVERSITY™
MS AGRICULTURAL AND FORESTRY EXPERIMENT STATION

Equipment Recovery

The lifeblood of many agriculture operations 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. Whether bogged down in mud or just in a position with no traction, equipment recovery is sometimes necessary. Recovery and every function of it can be inherently dangerous unless safety is 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. Always follow the safety warnings. Know the working load limits of chains, straps, hooks, clevis and any other devises used. It only takes one weak link in your recovery system failing to cause an avoidable accident.

Establish minimum safe distances. Clear all unnecessary personnel from the recovery site. Each person conducting the recovery must know where all other personnel are located at all times. Don't stand close to any loaded winch line. Be aware that cables can break and backlash into personnel.

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Communicate. Never assume the other person knows what you are about to do. Assess the situation and make a plan. Don't rush to get things done. 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" may sound like "GO".

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Many times equipment recovery accidents occur from misuse or overloading of devices. Understand the tools you have to work with.

Cables - Weighing a steel winch cable down with something like a heavy blanket, tow strap, or heavy coat or specially designed winch weight is a great way to reduce the danger of a snapped steel cable. For one, the weight of the item pulls the cable down where, if it breaks, it will hopefully hit the ground rather than any people.

Rigging - Position the hook with the open part (throat) upward. If the hook should straighten out from overload, the rigging would be forced downward. If the hook were positioned with the open part (throat) down, the rigging would travel upward unrestricted and possibly cause injury to personnel or damage to vehicles.

D-ring shackle is a great tool, but it's heavy and thus stores lots of potential energy when under load. If it fails, it will travel fast with plenty of force to kill you. Be sure it is oriented correctly and the pin is screwed in tight, then back off ½ turn.

True recovery straps are nylon. Nylon stretches up to 20% of its length during recovery. Do you know how much chain will stretch? Basically, not at all. If you do stretch it, it means that you're putting it into failure mode. Chains have their uses and are usually okay for towing, but not designed for snatching out stuck equipment. Use recovery equipment as intended by its design.

Sources:
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