City of San Angelo 72W College Ave 2nd Floor San Angelo TX 76902



Worksite:	Instructor:	Date/Time:
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Topic C335: Winches

Introduction: Winches are very useful pieces of equipment to have on vehicles. Winches may also be used as hoists on the jobsite for lifting loads which would be unmanageable by hand. However, the use of winches poses safety hazards which must be addressed to operate the equipment properly and safely. Following are guidelines for the safe use of winches and equipment:

- Employers must ensure that personnel who use winches are properly trained in their safe use, including safe rigging and hoisting procedures.
- Read and understand the operator's manual for the type of winch you will be using.
- Do not exceed the rated capacity for the winch, cable, rigging, or attachments.
- Prior to use ensure that the winch is mounted securely and properly. Check for loose, missing, or damaged parts.
- Never use winches to lift, hoist, or move personnel. The proper equipment must be provided for use as a man lift.
- Ensure that at least five wraps of cable remain on the drum when the winch is operated. Cable anchors on winches are not designed to hold the rated capacity for the winch.
- Stay clear of suspended loads and loads or cable under tension from the winch.
- Never step over a cable which is under tension.
- Maintain the winch and all associated equipment according to the manufacturer's recommendation.
- Winches not equipped with automatic brakes should not be used to hoist suspended loads.
- On vehicle mounted winches, never move the vehicle in conjunction with the winch to pull or wrench loads. This may seriously exceed the rated capacity of the winch, cable, and attaching equipment.
- When using a winch to pull a load, place a blanket or mat over the cable 6 8 feet from the load before applying tension to the cable. This will reduce the chance of injury or damage from a cable or attachment which fails.
- Prior to use, attach the cable hook securely, apply tension to the cable, and check the hook attachment again to ensure it is still properly attached and pulling in a straight line with the cable.
- When using a vehicle mounted winch, place the vehicle in neutral with the wheels blocked and the parking brake set before applying tension with the winch.
- Ensure that pulley snatch blocks are tightly closed to avoid pinching the cable.
- Winches operated from a PTO must have the PTO shaft guarded to prevent contact with personnel.

Checklist for rope, chain, hoists, and equipment used with winches:

- Inspect the rigging and hoisting devices before use and as necessary during use.
- Remove all defective rigging or hoisting devices from service.
- Do not tie knots in chains or slings.
- Do not construct makeshift hooks, links, or fasteners from rods, bolts, or other such devices.
- Use only approved factory-made attachments.
- Attachments and hoist hooks must have a safety latch, safety type hook, or other device to prevent slings, attachments, or loads from inadvertently lifting out of the hook.
- Inspect fiber rope frequently and do not use of rope that shows visual signs of excessive wear, abuse, spots indicating caustic or acid damage, or other defects that would reduce the rated strength below the safe working load.
- Do not allow anyone to pass under suspended loads, or over cables under tension.
- Ensure that there is a preventive-maintenance program established for all hoists.
- All operators must be trained on the particular hoist being operated.
- The rated capacity must be visibly marked on each crane, hoist, or jack.
- Sufficient lighting must be provided for the operator to perform the work safely.

Conclusion: Winches are indispensable for freeing stuck vehicles, and lifting heavy loads. However, winches must be operated knowledgeably and safely to prevent accidents. Hazards associated with winches are foreseeable and prevention is easily accomplished by using common sense and training.

Employee Attendance:	(Names or signatures of personnel who are attending this meeting)					