

LESSON PLAN

R41 Warn Winch

Lesson Description: The driver operator/firefighter will be shown the proper procedures for operating the WARN Winch used on Rescue 41. The driver operator/firefighter will then demonstrate the proper procedures to put this equipment into operation.

Lesson Outline:

Classroom

1. Introduction
2. Equipment Location
3. Safety Precautions
4. Winch Operation
5. Weekly Vehicle Checks

Practical Skills

1. Winch Operation
2. Mounting Points/Procedure

Objectives: Given equipment information and Rescue 41 apparatus, the driver operator/firefighter shall demonstrate with 100% proficiency the safe operation of the Winch and all tools associated.

Introduction

Rescue 41 is equipped with a WARN brand winch capable of 9,000 lbs of straight-line pull. The length of the winch in straight-line feet is 100 feet. There are three winch hitch point receivers with the power supply at each point. With the battery switch for the apparatus on, the winch can be energized at any of the three hitch points.

The apparatus is equipped with a front wheel lock that should be activated while the winch is in use. The wheel lock is located in the driver's compartment on the doghouse and labeled.

The winch also has a tool bag associated with it in order to provide all tools necessary to mount the unit and operate it. The control whip is in this case. Other items are various straps and cable weights. Straps are to be used in conjunction with the cable and clevis hooks to apply to any thing that is in need of the winch. Cable weights are simply to be used to "drape" over the cable to control stored energy in case of failure of the cable. The weights simply deaden the action of the cable, controlling it by weight, to the ground.

Equipment Location:

1. The winch is located in its compartment and mounted by side guides to hold in place. The tool bag, straps, control whip, receiver pins, and cable weights are also in this compartment.
2. There is an instruction sheet included for operation and maintenance recommendations.
3. There are three-receiver slots to put the winch in service. (Front bumper, drivers side, and passenger side)
4. There is a power supply at each of the three receivers.

Safety Precautions:

1. As with any energized electrical equipment, safety is of utmost importance.
2. Ensure that the electrical power or individual equipment cords are not cut or frayed.
3. Before moving the apparatus make sure that the winch and is in the stowed position before moving the apparatus.
4. Be sure the vehicle is in the "neutral" position and that the front wheel lock is engaged.
5. Never drive the vehicle with the winch in position at any of the receivers.
6. Never hook up the control whip until you are ready to use the winch.

Winch Operation:

1. Set the parking brake, front wheel lock and place the transmission into the neutral position.
2. Depress the front wheel lock to engage.
3. Take winch and insert the 2" X 2" winch hitch into the receiver.
4. Put the hitch pin in the hole through the receiver and hitch. (Push button ball safety pin)
5. To "pay out" the cable, turn the gear select lever into "neutral" or the disengaged position and simply pull the cable out. Use gloves and the pay out strap to pull out to desired length. **(Never pull on the cable itself)** The winch cable will pay out to approximately 100', but not to go past the red painted marks on the cable. Those marks are approximately 5 wraps from the end of the spool. If paying out past that point in severely limits the operation of the winch. This shall be considered unsafe and not usable.
6. Next select the "engaged" position to get ready to pull in the cable.
7. At this point the "control whip" can be plugged in. (it only goes in one way, line up the notch at the top with the corresponding notch on the winch)
8. Now the winch is ready to operate by use of the "in/out" rocker switch on the hand control whip.
9. Ensure nobody or no thing is on or around the cable when in use.
10. Simply depress the "in" switch to bring the cable back in or to tension the cable load. (Stabilization)
11. Pay cable out again to let off the load after service is no longer required.
12. Put back in service by use of two personnel. One person at controls and one retrieving end of the cable. Hold tension on the cable by pulling back as the operator selects "in" on the switch.

13. Guide the cable into the spool so that it wraps one row at a time and consistently going back and forth. **(Never put your hands into, around, or near the spool or rollers when operating. Serious injury will occur.)**
14. Note that the winch does not stop instantly due to the gearing of the device. When getting close to the end extreme caution will be practiced while “pulsing” or “bumping” the switch to pull the cable into the “stowed” position.
15. Stowed position is achieved when the cable is wrapped properly on the spool and the end “loop” is stopped before going into the spool.
16. Disconnect the control whip and place back in tool bag.
17. Remove the hitch pin. (Depress the ball lock and pull pin out of receiver) Put pin back in proper place of the tool bag.
18. Now pull the entire winch (two people, when practical) out of the receiver. Safely carry back to its stored position in its compartment.
19. Inventory the tool bag and straps to ensure nothing is left unsafely on the vehicle or at a location.
20. The front wheel lock can be “pulled” out to disengage but not necessary due to the fact that it will disengage automatically when the vehicle parking brake is turned off.

Practical Vehicle Checks and Operation:

1. With the rescue in “neutral” and in safe working area, apply the front wheel brake.
2. Access the compartment in which the winch and appliances are stored.
3. Follow “Winch operation” from above.