

East Lake Tarpon Special Fire Control District

| | | |
|---|---|-------------------------------------|
|  | <i>SOP 939 Winch Operations Electric</i> | |
| | Implementation Date: 01/27/2009 | Revision Date(s): 01/27/2009 |
| | | Reviewed Date(s): |
| | Forms or Attachments: None | |

OPERATING INSTRUCTIONS

REMOTE CONTROL SWITCH:

The control switch, when engaged in the receptacle, is used to power in, or power out wire rope. The toggle switch activates the winch motor. There are three positions for the switch, the middle position being "OFF", and the other two positions are "power in" and "power out" as indicated on the control. The switch must be held in the power positions as the switch is spring-loaded and will automatically return to the "Off" position.

AUTOMATIC BRAKE (if so equipped)

Any time the control switch is in the neutral or off position, the brake will automatically activate against a load.

OVERLOADING-OVERHEATING:

This winch is rated for intermittent duty. It should not be operated with the motor lugged down to a low RPM. When the motor approaches stall speed, a very rapid heat buildup occurs which could cause permanent motor damage. The best way to judge safe running time is to stop winching and lay your hand on the motor occasionally. When it reaches the point that it is uncomfortable to leave your hand there, shut down and cool for a while. The cool down period can be used to advantage to recharge the battery. Double lining with a snatch block substantially reduces amperage draw which in turn will allow longer "on time".

BATTERY RECOMMENDATIONS:

A fully charged conventional automotive battery with a minimum rating of 500 cold cranking amps is recommended to obtain peak performance from your winch. Make sure all electrical connections are clean and tight.

MAINTENANCE:

No internal lubrication by the owner is needed for the life of the winch. Winch should not be submerged in water. If winch is accidentally submerged, it should be operated within 3 days until motor is warm to the touch. This should drive out any moisture that has entered the motor.

SAFTY PRECAUTIONS:

1. Never touch the wire rope or hook while they are in tension or under load. Even at rest, the winch may have the wire rope in tension.
2. **DO NOT** have the remote control lead plugged into the winch while free spooling, rigging, or sitting idle. Have the remote control lead plugged in **ONLY** during the actual winching operation.
3. While the remote control lead is plugged into the winch, always keep clear of the drum and fairlead area and the wire rope and rigging.
4. Never handle the wire rope or rigging while anyone else is at the control switch or during the winching operation.
5. Always stand clear of the wire rope and load during the winching operation. Keep helpers and spectators at a safe distance. If a wire rope pulls loose or breaks under load, it can lash back with tremendous force.
6. Before winching, inspect the remote control lead for cracks, pinched spots, frayed wire or loose connections. A damaged, shorted lead could cause the winch to run as soon as it is plugged in. When using the remote control inside a vehicle, always pass it through a window to avoid pinching the lead in the door. Always store the remote control lead in a clean, dry area where it will not be damaged.
7. Always be certain that the anchor you intend to use is capable of withstanding the load. Always use a choker chain, wire choker rope, or tree trunk protector on the anchor. Never put the winch wire rope around an object and hook back to it; this will cause damage to the wire rope.
8. Never winch with less than five wraps of wire rope around the winch drum. With fewer wraps, the wire rope could break loose from the drum under heavy load.
9. The wire rope must always spool off of the drum as indicted by the drum rotation decal on the winch. Some winches are equipped with an automatic brake and this brake **WILL NOT FUNCTION** if the wire rope spools off in the opposite direction. The wire rope spooling can accidentally be reversed by running the wire rope all the way out and respooling in with the control switch in the "power out" mode.

10. Never exceed the rated capacity for winching. Double line with a snatch block to reduce the load on the winch and wire rope by almost half.

11. Use the switch intermittently to take up wire rope slack to avoid shock loads which can momentarily far exceed the winch and wire rope rating.

12. Always unspool as much wire rope as possible when preparing rigging. Double line with a snatch block or pick an anchor as far away as practical. This will minimize wire rope damage, such as mashing and kinking, caused from top layers pulling down into the bottom layers when short pulls are made. The greatest pulling power is available at the First Layer on the drum, decreasing with each successive layer.

13. Always pull as straight as possible to minimize the buildup of wire rope on only one end of the drum. Always inspect and carefully rewind the wire rope after use. Mashed, pinched or frayed areas severely reduce the original tensile strength. For safety's sake, replace wire rope when damaged.

CAUTION: When powering in wire rope during side pull operations, the wire rope will stack up at one end of the drum. Eventually this stack will become large enough to cause serious damage to the winch. To prevent this damage, line pulls should be as straight in front of the vehicle as possible. Stop winching if the wire rope comes close to the tie rods or mounting plate. To correct an uneven stack, spool out the stacked section of the wire rope and reposition it to the opposite end of the drum. This will free up space for continued winching.

14. The life of the wire rope is directly related to the care and use it receives. The wire rope on a new winch, and any replacement ropes, **MUST BE STRETCHED AND RESPOOLED UNDER LOAD** before using the winch. Failure to do this will result in wire rope damage.

15. At times, it may be necessary to temporarily respool the wire rope under no load after use. The correct procedure is to hold the remote control lead in one hand and the wire rope in the other. Start as far from the vehicle as the remote control will allow, activate the switch, walk in several feet of rope and release the switch. Repeat the process. **ALWAYS** release the switch when your hand is **AT LEAST FOUR FEET** from the fairlead (the physical opening through which the wire rope passes).

16. **ALWAYS** release the switch when the **HOOK** is a **MINIMUM OF FOUR FEET** from the fairlead. The following procedures are important to **PERSONAL SAFETY** and to avoid wire rope damage caused by over tightening.

If your winch is equipped with a clutch, unplug the remote control lead, release the clutch, and rotate the drum by hand to retrieve the remainder of the wire rope. Re-engage the clutch.

If your winch is not equipped with a clutch, place the hook on a suitable spot on the mounting kit. Then, keeping your hands completely clear of the hook, the wire rope and the fairlead, jog the switch intermittently to take up the slack. Do not over tighten or damage may occur to the wire rope.

17. When anchoring the pulling vehicle, set the parking brake and block the wheels. Place automatic and manual transmissions in neutral.

18. When retrieving or spooling in wire rope, be sure to distribute the wire rope evenly and tightly on the drum. This prevents the top layers of wire rope from being drawn into the bottom layers of wire rope and creating a "bind". If the wire rope binds on the drum, the winch and/or the wire rope may be damaged. A "bound" wire rope will reel out only a short distance and then will reel back in even though the remote control is held in the "out" position. Should the wire rope become "bound", connect the hook to a load. By alternately powering "in" and "out", the wire rope will usually work itself free. In any event, **DO NOT PUT YOUR HANDS ANYWHERE NEAR THE WIRE ROPE WHEN WORKING A "BIND" FREE.**