

OPERATING INSTRUCTIONS

CAPSTAN *Rope Winch*

by Simpson Winch Inc.

CAUTION - READ INSTRUCTIONS BEFORE OPERATION

Many uses of a pulling device involve serious risk of injury or damage to valuable property.
Do not underestimate the potential danger.

**THE SIMPSON ROPE WINCH IS DESIGNED AND MANUFACTURED FOR PORTABLE USE ONLY.
(IT IS NOT TO BE PERMANENTLY MOUNTED).**

OPERATE WITH CAUTION - SAVE INSTRUCTIONS FOR FUTURE REFERENCE

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5 YEAR LIMITED WARRANTY

The capstan unit on all models of Simpson Rope Winches is warranted for 5 years against defects in material and workmanship to the original purchaser. Warranty service is provided by returning the unit to Simpson, Inc. Return to factory freight pre paid. Warranty does not cover abuse or normal wear and tear. Simpson, Inc. will determine if the warranty claim is valid. Warranty does not cover loss of use or incidental and consequential damage. The engine on model SP is warranted for 1 year, by original manufacture (find nearest warranty station by looking in the yellow pages under "Engines - Gasoline").

MAINTENANCE

When you have completed your pulling job clean and dry the unit and check the winch, rope and tether for any damage or wear. Periodically check for loose screws or broken parts. The capstan unit is lubricated at the factory and should require no lubrication or maintenance. **NOTE:** Some oil may leak from the bearings under the capstan drum on either unit, or around the input shaft for Model CS. However, sufficient oil will remain in the unit.

Maintain the engine on Model SP per the instructions supplied with the engine. Maintain the chain saw engine per the instructions supplied with the saw. When any gasoline engine is stored for an extended period the gasoline should be removed from the gas tank and carburetor.

ROPE SAFETY

Simpson capstan winches are for use with LOW STRETCH rope. Make sure the winch rope is made of a low stretch material such as polyester, Dacron or manila. Polypropylene and polyurethane rope is dangerous for use with the winch because of high stretch and low melting point. Nylon rope has very high stretch. Be sure the rope is undamaged and of adequate strength for the intended load.

TYPICAL MINIMUM BREAKING STRENGTH OF ROPE - POLYESTER, 2,900 pounds, the units are designed for use of 5/16" or 3/8" only.

CAUTION - STRETCH MEANS DANGER! Stretch in the winch line can cause the rope to snap out of your hand with extreme force and could cause a serious injury by pulling your hand or body into the winch. Stretch in the winch line can cause the load to "break free" with considerable force and jump in an unpredictable and dangerous manner. All rope will stretch. A long rope will stretch more than a short rope. The more the pull the more a rope will stretch. Use care when releasing tension on the winch line. The line can recoil and pull your hand into the winch or cause a severe rope burn. Wear gloves.

BASIC SAFETY RULES

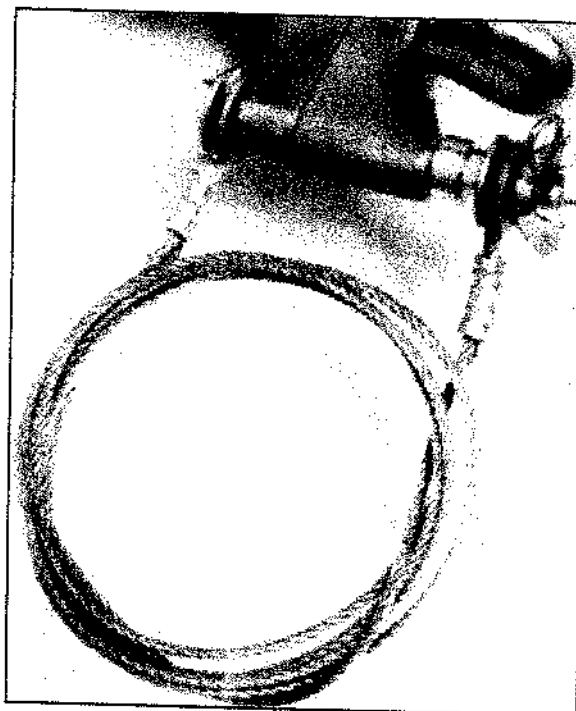
Do not operate the winch while drinking or under the influence of drugs. Select attachment points that are strong enough to stand the pull. Do not place your hands inside the fairleads or on the drum while the engine is operating. Avoid standing in line with rope under tension. Operate the winch from the side and at a safe distance. Keep body parts out of the coils of the rope. Do not loop the tail of the rope around your hands.

Keep spectators clear of the work area. Keep people out of vehicles being pulled by the rope when there is any danger of the vehicle "running away" or rolling over if the rope breaks, or the vehicle slips. This winch is not intended for lifting loads. There is no safety device built into the winch to prevent the load from falling if the winch rope is released. Do not use the winch to lift people.

HOW TO USE A ROPE WINCH

STEP 1. TETHER THE WINCH

The first step when using the Simpson Rope Winch is to attach the winch to an object with the 8 foot long tether cable that is supplied with the winch. The tether is made of 3/16" diameter galvanized steel aircraft cable (4,200 pound breaking strength). One end of the tether is bolted to the winch, the other end is secured with a wing nut and safety pin.



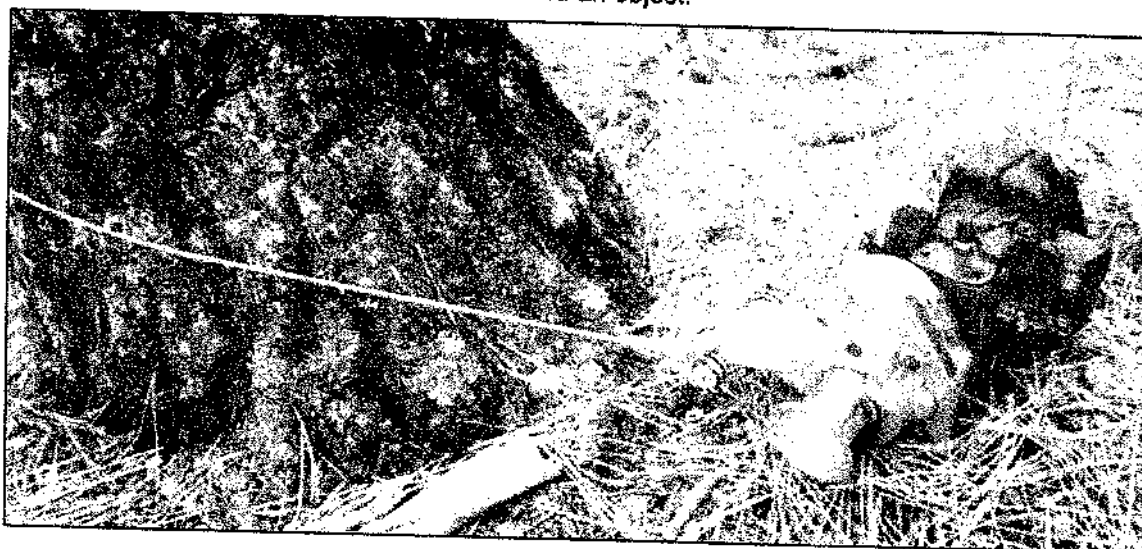
When the attachment point is an item, such as a stump, post or trailer hitch ball, the tether cable can simply be uncoiled and looped over the object to which you wish to attach the winch.

TETHER OPTION 1. Loop the tether cable over an object.



When the attachment is an item such as a tree, or eye bolt, you must first detach one end of the tether cable so that it can be wrapped around the object, or threaded through the hole in the eye bolt, and then reconnected to the winch. Remove the safety pin, wing nut and outside washer and slide the loop on the end of the tether cable off the end of the bolt. Do not remove the bolt from the winch. Loop the tether around the object and bring the end of the cable back to the bolt on the winch. Replace the washer and wing nut and tighten finger tight. Replace the safety pin and rotate it so that it will not catch the rope when it is wound around the capstan and exit hook.

TETHER OPTION 2 . Wrap the tether cable around an object.



Position the winch so that the fairlead is pointed in the direction of pull. When the winch starts to pull, the winch will swing and twist on the tether to align itself with the pull and the rope. The tether and winch should be able to move without hitting an obstruction or causing damage.

Be certain that the attachment point is strong enough to withstand the pull without damage or breaking. When you attach the winch to a vehicle, such as around a trailer hitch ball, tow hooks, grill guard or spring mount, be certain that you will not bend or break the tie point. Many accessories such as grill guard, tow hooks and even trailer hitches can pull loose when they are used for winching.

Avoid looping the tether cable around sharp edges that could cut or damage the tether cable. When you use a post, tree or stump as an attachment point be sure to place the tether cable near the base.

STEP 2. TIE OFF THE WINCH ROPE

The key to safely using the winch is common sense when you lay out the rope for the pull. The wide variety of situations encountered in actual use do not allow us to give specific instructions, however consider the following points:

Use strong, low stretch rope (see "Rope Safety" section of the operating instructions) and good knots (learn to tie a bowline). Use blocks and pulleys to turn corners and multiply the pulling power when the pull is close to the breaking strength of the rope, or near the pulling capacity of the winch.

Lay out your rope so the load will not hang up or dig in on the pull. Try to attach the winch in such a manner that the front end of the load is being lifted. Don't pull down or through an obstruction, such as when a load is being pulled up a slope or ramp and then over a break. As a general rule if the rope is dragging on the ground when the load is being pulled the rigging is not correct.

Do not pull a load down a slope towards the winch and to where you are standing to operate the winch because the load could coast or run away and you would have no way to stop it.

TIE OFF OPTION 1: In most cases the winch is attached to an unmovable object with the tether cable and the rope is tied to the object that you want to move so that it can be pulled to the winches location as the winch winds in the rope.

ANCHOR & WINCH

LOAD



TIE OFF OPTION 2: Sometimes the winch is attached to the object that you want to move with the tether cable and the winch rope is tied to an unmovable object. Then the winch and the object you want to move are both pulled to the point where the rope is tied off as the winch winds in the rope. This method is useful when you must be near the load to guide its movement and control the winch operation, such as when operating the winch alone.

WINCH & LOAD

ANCHOR

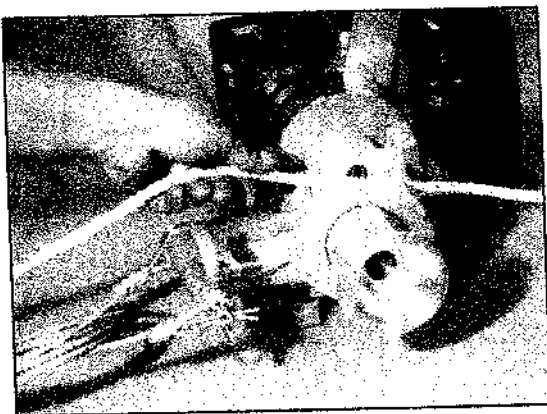


STEP 3 WRAP THE ROPE ONTO THE DRUM

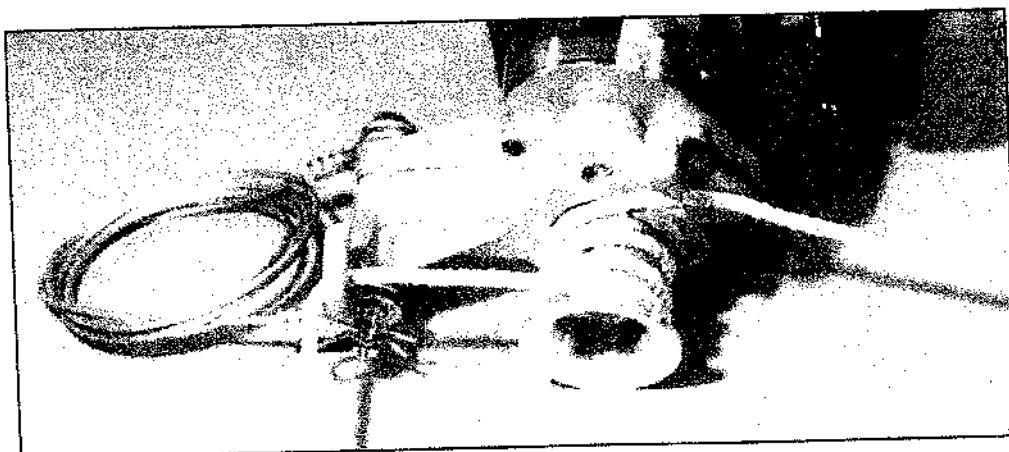
First check over the machine, rope, knots, rigging and load to be sure you are not going to cause damage or risk life and property.

A. Start the engine, See note in Model CS instructions for locking the throttle on chain saws.

B. Feed the rope through the inlet fairlead.



C. Wrap the rope around the rotating drum.



STEP 4/ PULL THE LOAD

Stand away from the unit and apply tension to the tail of the rope to move the load. Be careful not to get tangled in the coils of rope. Do not loop the rope around your hand or body. Pull on the tail so that the rope is against the exit hook when it feeds off the drum. This allows you to see the winch and yet be out of the path the rope would follow if it were to break. **DO NOT PLACE YOUR HANDS INSIDE THE FAIRLEADS OR ON THE DRUM WHILE THE ENGINE IS OPERATING.** Watch the capstan while operating to be sure you do not get a backlash. If you do, stop the engine and release the tension on the winch rope before you work to clear the snarl.

Pull lightly on the free end of the rope to make the winch pull. Stand 10 to 20 feet to the side of the winch and rope of space and location allow.



Simply pull the rope hand over hand into coils near your feet or into a container as the winch pulls in the load.

If the rope is slipping on the drum while you are pulling place more wraps on the drum. If the winch reaches its capacity the engine will stall or the clutch on the chain saw will slip. You must re-rig or rock the load. To rock the load pull until the engine almost stalls, or the clutch slips, then slack off the pressure on the tail. Then pull on the tail again. Use care not to do this so often that you wear through the rope.

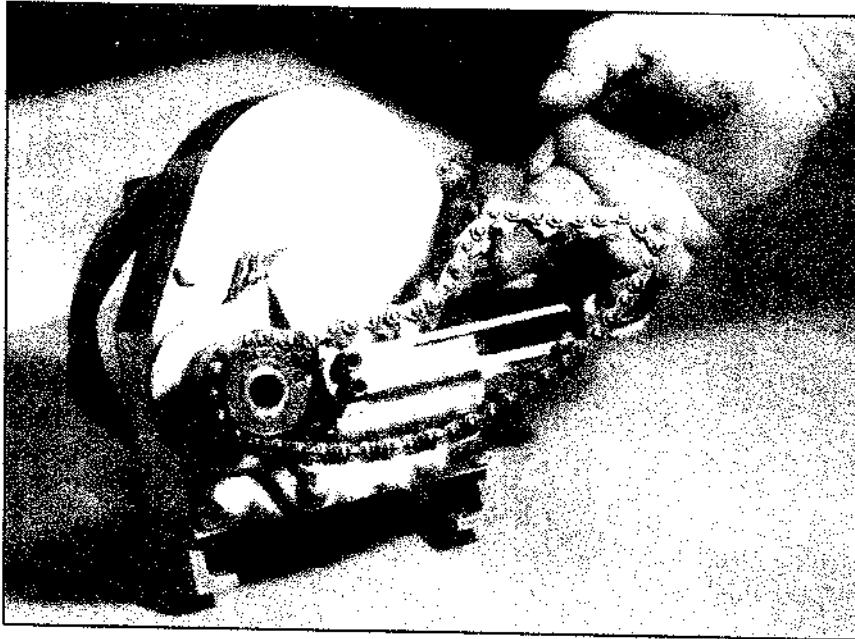
If the winch is pulling rope and the load is not moving (usually when you have a very long rope) your rope is stretching and may be reaching the breaking point and you are in danger of snap back. Slack off the tail but be cautious of snap back that could jerk the rope out of your hands and cause a rope burn or pull you into the winch.

To pause when pulling slack off the pressure on the tail of the rope and allow the rope to slip on the drum. Do not allow the rope to slip on the drum for more than a few seconds while you have a load on the the rope (it can melt some rope materials). To stop in the middle of a pull without releasing the tension on the load you must keep pressure on the tail by holding the tail or trying it to a secure object. Then turn off the engine.

Knots will not pass through the fairlead and will cause snarls. If you must tie two pieces of rope together to reach the load, stop the winch before the knot reaches the winch. Tie the load to an anchor and release the tension on the winch rope. Feed the knot around the drum and restart the winching operation.

INSTRUCTIONS - MODEL CS

Simpson Rope Winch Model CS is built to use the engine unit of a chainsaw for power. Model CS is sold with an adapter and length of drive chain that is used to fit the winch onto most chain saws.

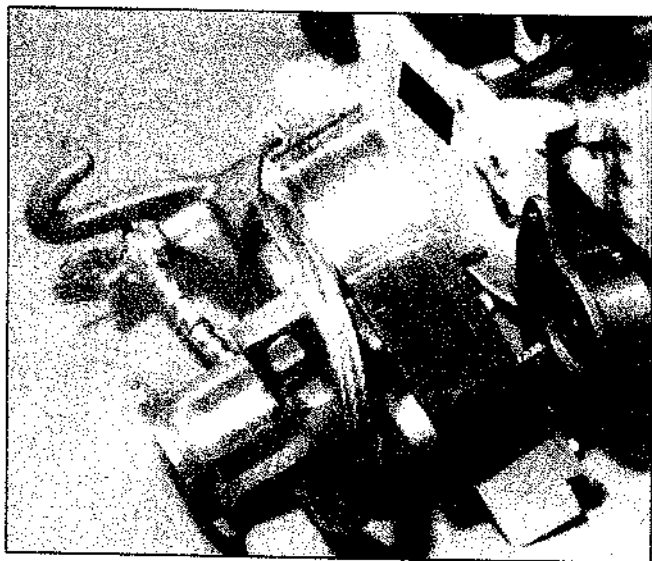


NOTE: The adapter and chain that is standard equipment for the Model CS will only fit saws that are equipped with 3/8" pitch chain. The slot in the replacement bar on the adapter is 3/8" wide. When the winch is fit to some saws (particularly larger stihl saws) the slot must be opened with a file or grinder to fit over the bar mount studs on the chain saw.

1. Remove the saw chain and bar from chain saw. Read the saw operating instructions. The adapter for model CS does not use the chain tension adjuster of the chain saw. Position the chain tension adjuster on the saw so that it will not hit the stub bar or the drive chain for the winch. On most brands and models of saws the adjuster must be removed.
2. Attach the adapter assembly and short length of cutterless drive chain to the saw the same as the bar and chain you just removed. Tension the chain. Check the chain for free rotation by hand or by starting the saw and running the assembly without putting it on the winch unit. Recheck to be sure the adapter is still tight and the chain tension is proper. Chain should have approximately 1/8" to 3/16" free play (hot).



3. Apply a liberal quantity of grease to the groove in the socket end of the adapter and slip the socket in the end of the adapter over the hex shaft and two threaded studs that protrude from the capstan unit. Secure the adapter to the capstan unit with the two lock washers and wing nuts.



NOTE: If your saw does not have a throttle lock you will need to devise a means of throttle tie down (tape or wire) so that the saw operates at approximately 3/4 of full throttle.

INSTRUCTIONS - MODEL SP

Simpson Rope Winch Model SP is built with a Honda 4-stroke engine. Instructions for operating and maintaining the engine are in separate instructions packed with the unit.

NOTE: The engine will operate better and start easier after a short break-in period. It is best to start the engine and allow the unit to run for approximately 20 minutes. **Warning: Any modifications to unit will immediately void warranty.**

SIMPSON WINCH INC.

