

## Winches

Winches are mechanical devices that could pull up or wind out the tension of a wire rope, rope, wire cable or cable. These devices, in its most basic form, are constructed of a hand crank and a spool. More complex winches are seen at the heart of machinery like for example tow trucks, elevators and steam shovels. Sometimes the spool can be known as the winch drum. Elaborate designs have gear assemblies which can be powered by electric, pneumatic, internal or hydraulic combustion drives. Several winches can comprise a solenoid brake or a mechanical brake or a ratchet and pawl device to be able to stop it from unwinding unless the pawl is retracted.

Normally, the rope is stored on the winch. There is similar machine known as a capstan that does not store the rope. In sailing, when trimming a line on a sailboat, the crew member operates the handle of the winch making use of one hand while tailing the other to be able to maintain tension on the turns. Several winches have a stripper or cleat to maintain tension. These designs are called "self-tailing" winches.

Usually, a winch is utilized in big theatrical shows as a part of the mechanics so as to move setting. Every so often there are also winches really imbedded in the stage in order to help transfer the several larger set pieces on and off the stage.

The new generation of winches have been created for snow and water sports enabling the riders to be pulled rapidly across a body of water or of snow. This can stimulate a riding experience which is usually supplied by a snow mobile, wave runner or a boat.