

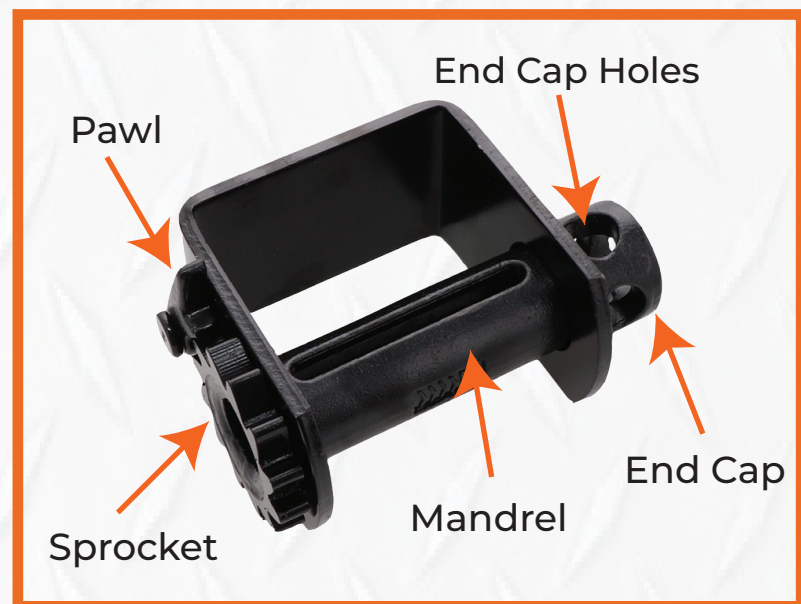
Winches

Care & Operation

Cargo control winches are considered to be the heart of a tie-down assembly's strength. When combined with the durability of winch straps and the tightening strength of winch bars, they provide an important cargo securement method for flatbed trailers and other vehicles.

Care of Winches

- Winches shall be inspected prior to each use to ensure that the winch has not been damaged and is in proper working condition.
- Winches that are damaged should be removed from service immediately and replaced with new ones.
- Make sure the winches are clean and lubricated to ensure that the winch pawl can drop freely between the sprocket teeth by gravity. Dirt, mud, snow, ice, salt and other materials can prevent the pawl from freely dropping between the sprocket teeth.
- Drivers should also check the sprocket for impediments. If it will not rotate freely, it needs cleaned and lubricated. Also make sure the winch track is clean and free of debris so the sliding winch can move freely.
- Portable winched should be stored in a dry location when not in use.



Operation of Winches

- Before tensioning, pull excess webbing through mandrel slot. When the tie-down is fully tensioned, two (2) to three (3) wraps of webbing shall be on the mandrel (four to six layers of webbing).
- Please Note: Additional wraps of webbing can cause damage to the winch if excess tension is applied to the winch. Excess wraps can also make it difficult to apply or release tension.
- When tensioning or releasing the inch tie down in rain, ice, or snow conditions, properly position your feet and body to prevent slipping

Winch Bar

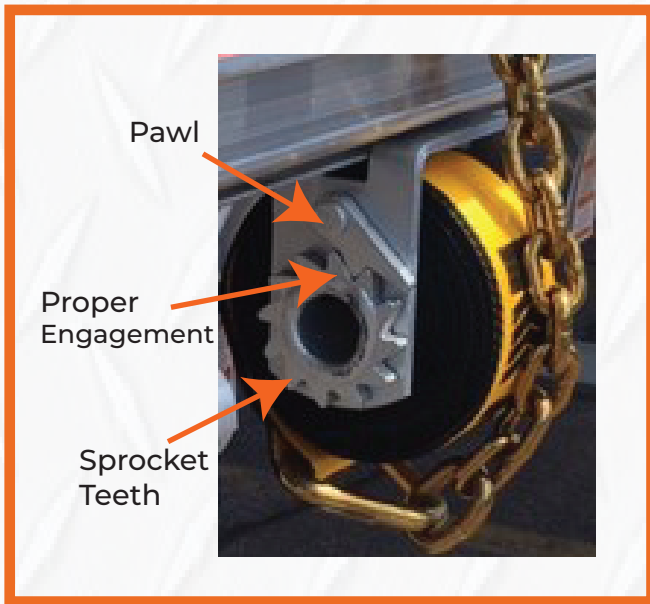


- Use only winch bars that have been designed to tension and release winch tie-downs (a slip resistant handle and tip is recommended). Never use a plain bar or tube as a winch bar. They can slip out of the winch end cap holes and injure the user.
- The Winch bar shall be inserted through both holes in the winch end cap. Using only one (1) hole in the end cap can damage the winch and winch bar tip, eventually causing them to fail and injure the user.
- A “Cheater Bar” or “Extender” on a winch bar shall **NEVER** be used to apply tension to a winch tie-down assembly. Using these can injure the user when the winch bar and/or “cheater bar” slips off the winch or causes the winch to fail.



Winch Bar inserted through both end cap holes

- When tensioning or releasing the winch tie-down assembly, always stand clear (to one side) of the winch bar, in case the bar slips. Maintain a firm grip on the winch bar and never release it without checking the pawl to ensure that it is properly engaged between the sprocket teeth.



- Portable winch set screws are designed to position the winch while the tie-down is being tensioned. They shall only be “snug” tight. Over tightening of the screws may cause the bracket to bend, weakening the winch and causing it to fail.
- Winches shall not be located between the tire and the bed of the vehicle, this creates a potentially hazardous condition.
- Winches shall never be loaded in excess of their Working Load Limit

- Winches shall be used in accordance with federal, state, local, and industry regulations applicable to cargo securement. Example: Federal Motor Carrier Safety Regulations 392.9 & 393.100

Inspection & Training

- A training program for truck drivers is recommended for the correct and safe use of cargo securement products.
- *Please Note: This bulletin lists some of the important considerations for the proper care and operation of cargo securement winches, but it is not an all-inclusive list.*