



HANDLING AND STORAGE of CABLES

CABLE HANDLING

1. Unloading of reels from lorries

This shall be carried out with suspension equipment (crane) or a forklift truck. They must never be allowed to drop to the floor. The protection stave (due to breakage) should never be the cause of possible damage to the cable. The cable must be checked for any possible damage arising due to the irregular handling of the reel, both during and after transport. Any damage to the cable that is not detected prior to installation may reduce its working life.

Cable reels are never shipped upended (flat side down). Cable reels that arrive in this manner should be rejected or received only after a thorough inspection for damage. Upon receipt, a cable's protective covering (and/or lagging) should be inspected for evidence of damage during shipment. If evidence of damage is found, a report should be immediately filed with the carrier. Under no circumstances should reels be dropped from the delivering vehicle to the ground. Unloading and reel handling should be accomplished so that the equipment used does not contact the cable surface or applicable protective wrap.

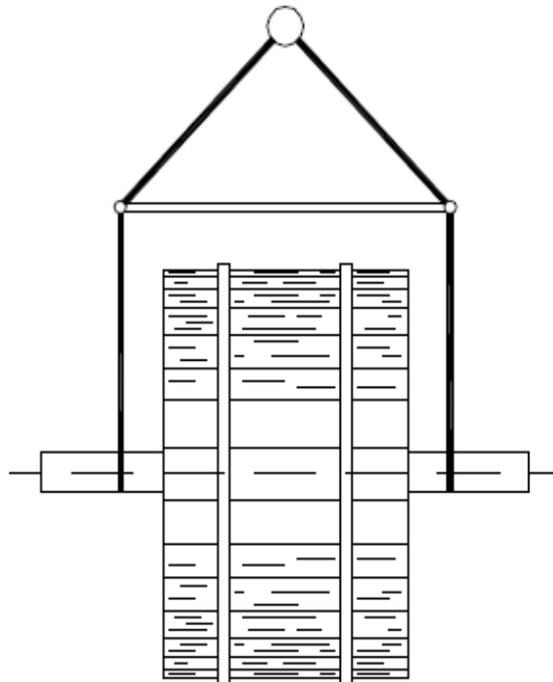


Fig. 1

CABLE HANDLING

2. Loading and unloading of reels

If unloading and reel handling via crane, either a cradle supporting the reel flanges or a shaft through the arbor hold should be used. If using a fork lift, the forks must lift the reel at 90° to the flanges and the forks must be long enough to make complete lifting contact with both flanges. Under no circumstances should the forks come into contact with the cable surface or the protective wraps. When a reel of cable must be rolled, always roll the drum in the direction of arrow to prevent the cable from unwinding or loosening.

Make sure rolling surfaces are firm and free of debris which could contact or damage the cable surface. Once the reel is in position, remember to use proper stoppers to prevent the reel from rolling.



Fig. 2

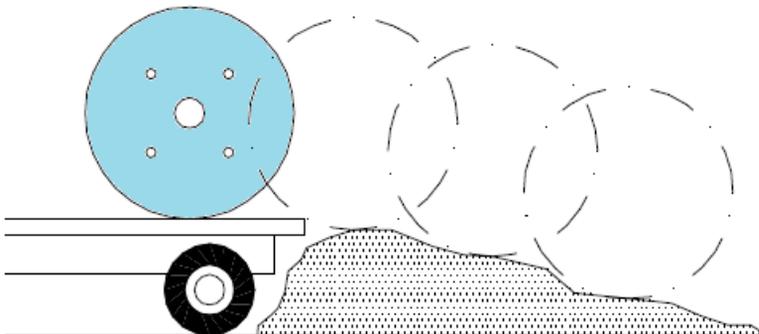
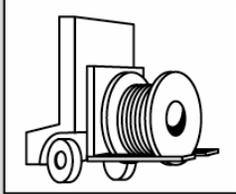


Fig. 3

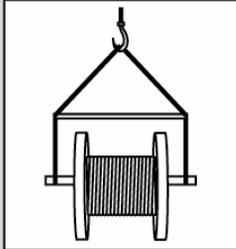
CABLE HANDLING

3. General instructions

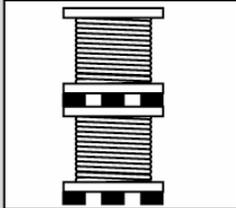
YES



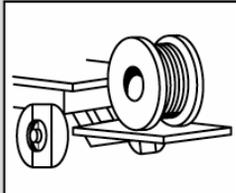
Cradle both reel flanges between forks.



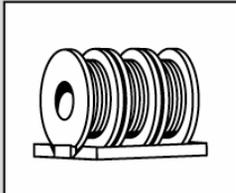
Reels can be hoisted with a shaft extended through both flanges.



Place spacers under the bottom flange and between reels to create a space to insert the forks.



Lower reels from truck using hydraulic gate, hoist or fork lift. **LOWER CAREFULLY.**

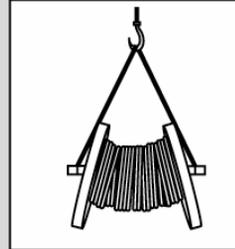


Always load with flanges on edge and chock and block securely.

NO



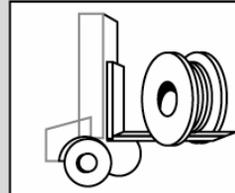
Do not lift by top flange. Cable or reel will be damaged.



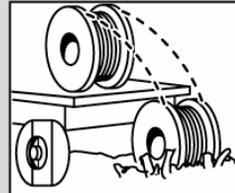
Use a spreader bar to prevent bending the reel flanges and mashing the cable.



Upended heavy reels will often arrive damaged. Refuse or receive subject to inspection for hidden damage.



Never allow forks to touch cable surface or reel wrap.



Never drop reels.

CABLE TRANSPORT

4. Rolling of reels

The systematic rolling of reels should be avoided, and in any case, reels must be rolled in the direction of the original coiling in order to avoid the cable coils becoming loose and dragging on the ground. As when they are shipped from our warehouses, care must be taken not to leave the ends unprotected, at the same time as they should be stored in the same direction as the rain.

Cables that are left over from jobs must be coiled for storage on a reel with a core that is the same size or larger than the original one. If the size is not known, a core with a diameter that is at least 20 times that of the exterior of the cable should be used.

When removing a certain length from the original reel, it must never be coiled over a smaller diameter. The capacity of the reels must be limited by the space that must be left free to prevent the uppermost coils pressing against the floor when the reel is rolling.

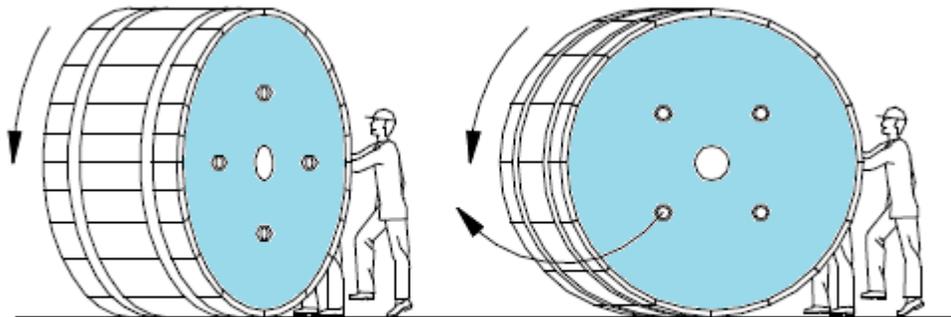


Fig. 5

CABLE STORAGE

6. Location for laying

Stacking should be avoided. Leave sufficient space between reels for air circulation. Reels should be stored with the protective covering (or lagging) in place. If cable has been cut from the reel, the cable end should be sealed to prevent moisture damage. Wooden reels should be stored off the ground to prevent rotting. Store reels on a dry, firm surface to avoid settling. At all times, the weight of the reel and cable must be carried by the reel flanges.

Cable reels should not be stored in areas with direct contact with water/dampness or where chemicals or petroleum products could be spilled or sprayed on the cable. Storage should be in an area where construction equipment, falling or flying objects, or other construction debris cannot come in contact with the cable. Cables should be stored away from open fires or other sources of high heat.

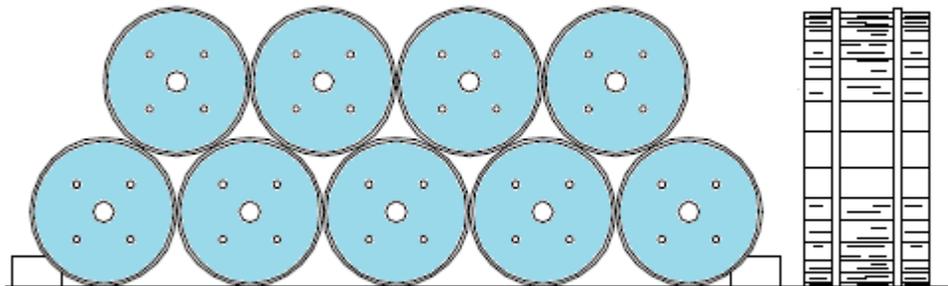


Fig. 6

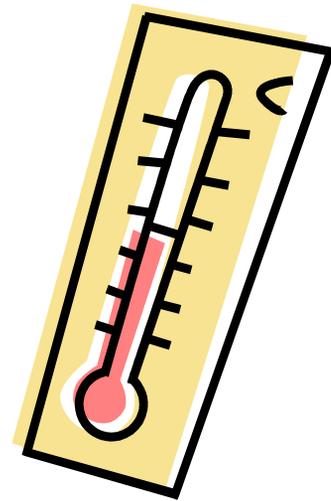
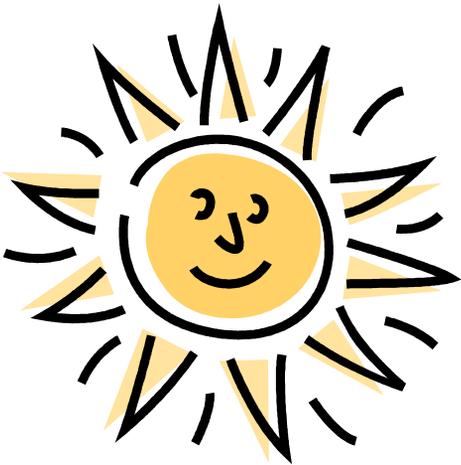
CABLE STORAGE

6. Laying of the cable

Finished cables have no established shelf life. However, cables will degrade (oxidize / discolor) when exposed to moisture, sunlight, and atmospheric conditions/elements. Cables should be stored in sheltered areas and covered to prevent exposure. When reels are exposed to weather, inspections should be performed to guard against deterioration.

Generally speaking, cables for indoor use should be stored indoors and cables for outdoor use can be stored outdoors. However, if a cable does not have a cold temperature marking, it must be stored indoors. Cable reels must not be stored upended (on the flat). The floor surface must be hard, even and, if open to the elements, have good drainage. The protection staves of the reel must be kept until the cable is laid.

If the reel has been exposed to the elements, above all in the winter, special attention must be paid to ensuring that the temperature of the cable is not below 5°C; otherwise it will need to be tempered beforehand. It is very important to have alignment rollers, which will be placed at distances of between 3 and 10 meters, according to the length of the cable. In changes of direction, angle rollers must be used, and guide rollers are also advisable when introducing cables into tubes, and fording, etc. In general, the rollers must move easily, have a stable base, and their design must prevent the cable from running off the outlet groove. Attention must also be paid to the reel brake, preventing the formation of loops and the loosening of coils, as 'kinks' and twists may give rise to serious problems.



CABLES DE COMUNICACIONES




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