

USE OF BODY BELTS AND SAFETY STRAPS ON TOWERS

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1. GENERAL

1.01 This section describes the Tower Body Belt which is used with the tower ladder safety device or with safety straps for the protection of personnel climbing or working aloft antenna supporting towers.

1.02 This section is reissued to include the use of standard D or E fabric body belts equipped with a B Body Belt Slider on antenna supporting towers. This reissue updates the text material and illustrations to reflect the use of safety head gear and special eye protection. Since this is a general revision arrows denoting change will be omitted.

2. SAFETY PRECAUTIONS

2.01 Tower Body Belts and safety straps may become damaged and rendered unsafe for use if heavy objects such as trucks, trailers, or other heavy equipment is permitted to run over or fall on them. Care must be exercised to prevent this, however, if it should occur the belts and/or straps should be immediately removed from service and thoroughly examined.

2.02 The instructions contained in Section 081-721-101 should be adhered to in connection with the use of standard fabric safety straps with the tower body belt.

2.03 Never attach two safety straps together by the snaps for added length.

2.04 When attaching the snap hooks to the tower body belt or safety strands on antenna towers, **make certain the snap hook and the Dee Ring, rectangular steel ring, or safety strand are properly engaged.** Do not rely on the feel or on the click of the keeper in the snap hook as an indication that the fastening is secure. **Look and Know** that the snap hook is properly engaged before placing your weight on the belt.

2.05 Do not punch extra holes in the belt.

2.06 Do not fasten an uncoiled handline directly to the body belt when climbing or working on a tower. Either use a handline carrier or form the end of the rope in a bight and tuck the bight up under the belt.

2.07 **Safety hats and special eye protection must be worn at all times by personnel working around and aloft antenna supporting towers.**

3. DESCRIPTION—TOWER BODY BELT

3.01 The Tower Body Belt is fabricated of 3-inch, 2-ply cotton webbing and 1 3/4-inch nylon webbing sown together with nylon thread. The double tongue buckle engages the buckle holes in the leather covered nylon webbing. The belt is equipped with two standard Dee rings and a removable slider. The belt is available in sizes of 20, 22, 24, and 26 inches. The sizes referred to indicate the distance between the Dee rings. Fig. 1 illustrates the Tower Body Belt without the slider.

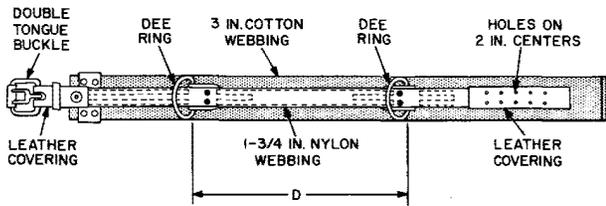


Fig. 1—Tower Body Belt

3.02 Standard fabric D or E Body Belts covered in Section 081-721-101 and used in conjunction with the B Body Belt Slider, may be used instead of the Tower Body Belt.

3.03 The slider (Fig. 2) is used with the Tower Body Belt in conjunction with the tower ladder safety device when the workman is ascending or descending the tower ladder.

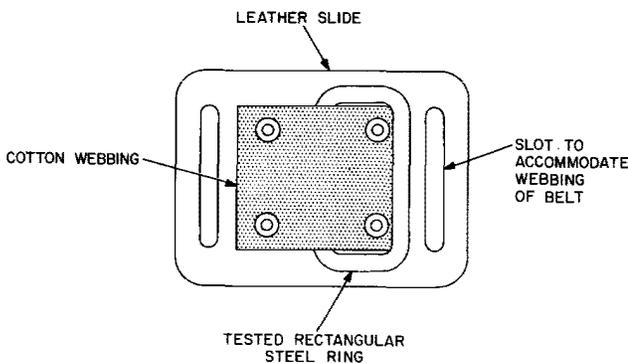
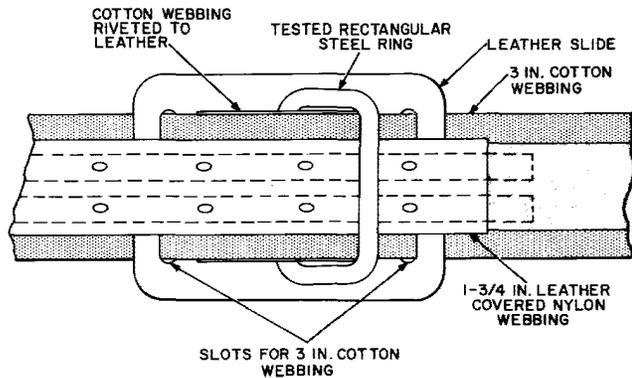


Fig. 2—Slider Used With Tower Body Belt

3.04 The slider which is furnished with the Tower Body Belt is fabricated of leather and carries a rectangular steel ring attached by a

strip of 3-inch cotton webbing riveted to the leather slide. The rectangular ring is provided to engage the snap hooks of the safety sleeve of the Tower Ladder Safety Device. When the slider is placed on the Tower Body Belt, care must be taken to place it so that both the 3-inch cotton webbing and the 1-3/4 inch nylon webbing pass through the ring as shown in Fig. 3.



NOTE:
PLACE SLIDER ON TOWER BODY BELT SO 3 INCH COTTON WEBBING AND 1-3/4 INCH NYLON WEBBING PASSES THROUGH THE TESTED RECTANGULAR STEEL RING.

Fig. 3—Slider Installed on Tower Body Belt

3.05 The B Body Belt Slider (Fig. 4) is designed for use on the standard D or E fabric body belt and serves a similar purpose as the slider furnished with the Tower Body Belt. The B Body Belt Slider used in conjunction with the standard body belts will eventually replace the Tower Body Belt and slider for use on antenna supporting towers. However, there is no need to scrap existing Tower Body Belts until they are worn out, damaged, etc.

4. DESCRIPTION—TOWER SAFETY STRAP

4.01 The B Tower Safety Strap supersedes the Tower Safety Strap for use with Tower Body Belts and D or E Body Belts when working aloft antenna supporting towers. The B Tower Safety Strap consists of 1 3/4-inch wide, 6-ply neoprene-impregnated nylon fabric equipped with a steel snap hook at each end. The safety strap is further reinforced by steel strapping where the fabric webbing passes through the stirrup of the snap hook. The steel strapping and fabric webbing are securely fastened with three rivets as shown

in Fig. 5. The overall length of the B Tower Safety Strap is 17-3/4 inches and is not adjustable.

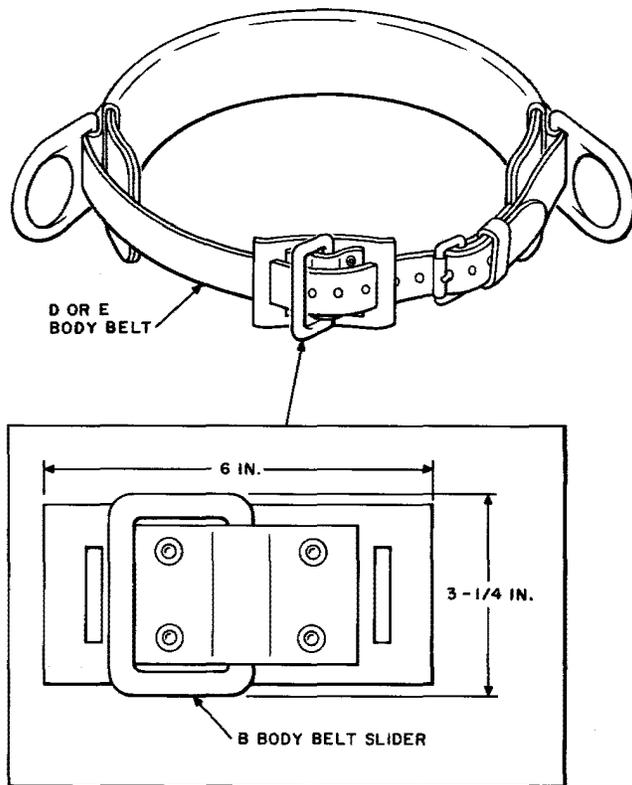


Fig. 4—B Body Belt Slider on Standard A or E Body Belt

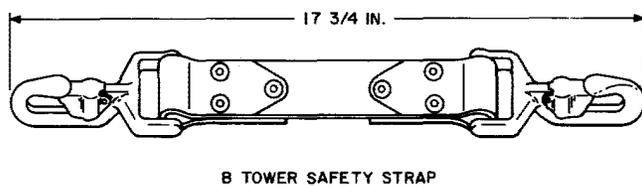


Fig. 5—B Tower Safety Strap

5. USE

5.01 A Tower Body Belt and Safety Straps shall be worn by all personnel when climbing or working aloft on antenna supporting towers. Their uses are described as follows:

- (a) Attach both snap hooks of the safety sleeve to the rectangular steel ring of the slider *before* ascending the tower ladder. Fig. 6 shows the safety sleeve connected to the Tower Body Belt during the workman's ascent.

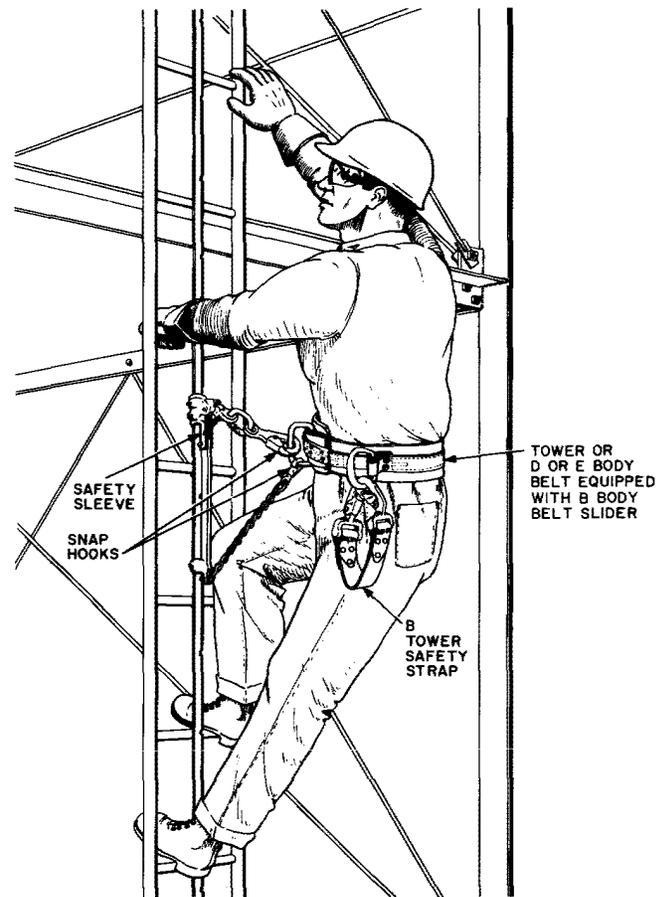


Fig. 6—Tower Body Belt Attached to Safety Sleeve

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(b) When transferring from the safety sleeve to the tower or safety strand, **engage a safety strap before releasing from the safety sleeve**. When transferring back, disengage the safety strap nearest the safety sleeve, engage both snap hooks of the safety sleeve, then disengage the other safety strap (Fig. 7).

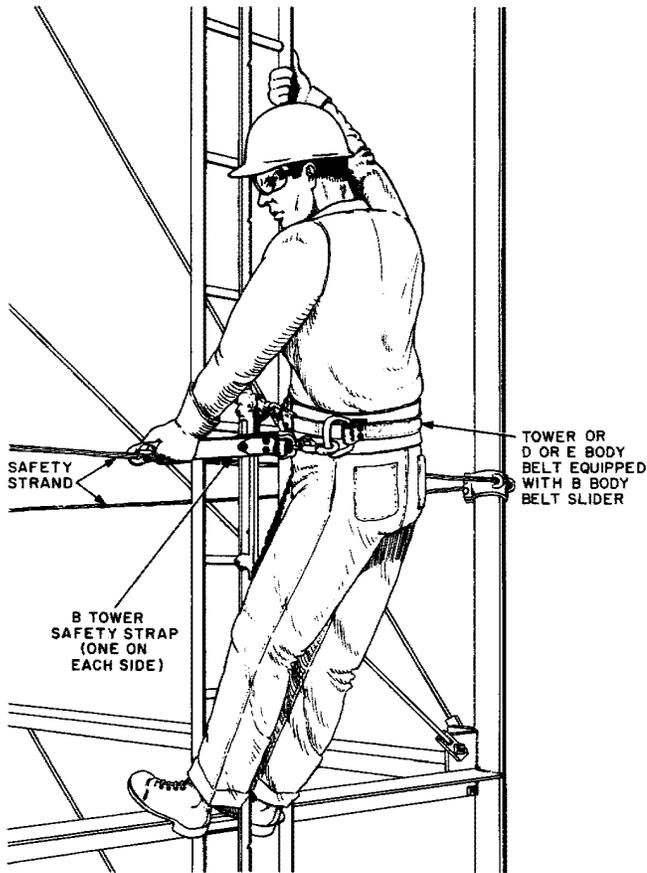


Fig. 7—Transferring Body Belt from Safety Sleeve to Safety Strand

(c) On towers equipped with encircling or vertical safety strands, use two Tower Safety Straps as shown in Fig. 8. When going around corners, past clamps, or from one safety strand to another, disengage and engage one safety strap at a time so as to keep one of the straps engaged at all times.

(d) On towers not equipped with safety strands, **two standard fabric safety straps** should be used in a similar manner as two Tower Safety Straps except that each fabric safety strap will be looped around a nearby member of the tower

with both snap hooks engaged to the same Dee ring.

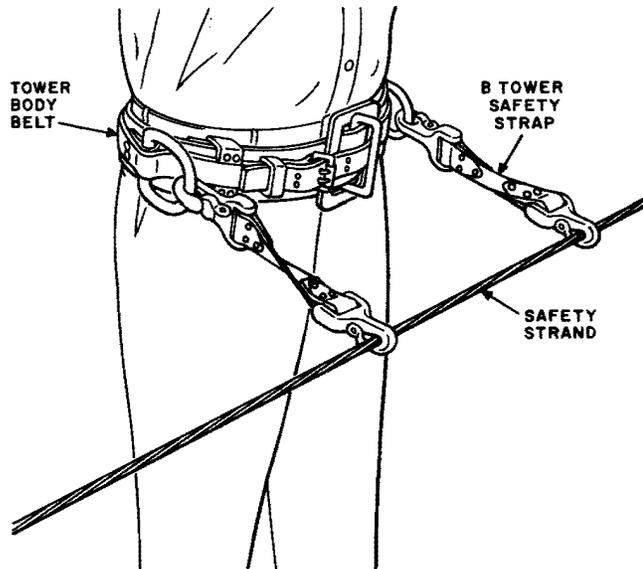


Fig. 8—Safety Straps Attached to Safety Strand

6. INSPECTION

6.01 Each employee should at all times assume the responsibility for determining that his body belt and safety straps are in good condition.

6.02 The supervisor shall inspect the body belt and safety straps periodically.

6.03 Each employee on receiving a Tower Body Belt and Safety Straps and at least once a week thereafter should inspect his belt and straps in accordance with 6.05 and 6.06 to detect any faults which might have developed.

6.04 Examine the belt or strap to determine the condition of all parts. If any of the following conditions are found to exist or if the condition of the belt or strap is such that there is any doubt as to its safety, it should be exchanged at once for one in good condition in accordance with local routine.

6.05 Visual Inspection, Tower Body Belt: The important things to look for are:

- (a) Broken, cut, or torn outer fibers.

- (b) Broken inner fibers.
- (c) Worn, broken, or defective steel reinforcing plates holding the Dee rings.
- (d) The condition of the nylon and cotton webbing, especially at the reinforcing plates, to determine whether webbing is crushed sufficiently to affect its strength.
- (e) Badly worn, broken, or defective leather covering on the punched hole end of belt.
- (f) Loose or broken rivets (particularly those in the loops holding the Dee rings).
- (g) Broken or rotted threads in the stitching.
- (h) Cuts, nicks, punctures, etc, that would affect the strength of the webbing.
- (i) Broken, cracked, or defective buckle.
- (j) Broken or defective rectangular steel ring.
- (k) Cracked or broken Dee rings.
- (l) Charred spots on the surface of the fabric, such as might have been caused by flames or contacts with hot soldering coppers, etc.
- (m) Acid burns. Belts that have been in contact with acid shall be removed from service.

6.06 Visual Inspection, Tower Safety Straps:
The important things to look for are:

- (a) The condition of the nylon webbing, especially at the snap hook stirrup, to determine whether it is crushed sufficiently to affect its strength.
- (b) Worn leather inner strips.
- (c) Cuts, nicks, punctures, etc, that would affect the strength of the webbing.
- (d) Loose, broken, missing rivets, or rivets with excessive wear.
- (e) Defective snap hook and poor action on the keeper of the snap hook. The keeper should work freely without excessive side play, and should close securely under spring tension.

- (f) Broken or rotted threads in the stitching.
- (g) Charred spots on the surface of the fabric, such as might have been caused by flames or contacts with hot soldering coppers, etc.
- (h) Acid burns. Straps that have been in contact with acid shall be removed from service.

7. CLEANING

7.01 Remove any paint, oil, grease, tar, etc, that may collect on the belt or strap by wiping with a clean, dry cloth. If this does not remove the surface deposit, petroleum spirits, or trichloroethane should be used on a clean, dry cloth to remove surface deposits. Do not soak the belt or strap, but rub vigorously with the moistened cloth. This cleaning shall be done in a well ventilated location.

8. STORING TOWER BODY BELTS AND SAFETY STRAPS

8.01 The following precautions should be observed when storing Tower Body Belts and Straps or when they are not in use:

- (a) Keep them away from radiators, stoves, steam pipes, fires, and other places where the fabric would be subjected to excessive heat.
- (b) Damp or wet belts or straps should not be packed in lockers, boxes, tool cases, grips, or other containers. They should be wiped with a dry cloth and allowed to dry completely by ventilation before storing or packing.
- (c) Belts and straps should never be stored with pointed or sharp edged tools unless such tools are equipped with satisfactory guards.
- (d) Store belts and straps in a location free from excessive humidity to prevent mildew.

9. DISPOSITION WHEN REQUIRING REPAIRS

9.01 A Tower Body Belt or Safety Strap which has developed a major defect shall be withdrawn from service immediately and returned to the storeroom for handling in accordance with the Company's established routine. Such belts and straps shall be tagged "Dangerous, Do Not Use," and, if practicable, they should be marked to show the location of any defects that cannot be readily seen.