SECTION 081-720-101
Issue 4, November 1981
Reprinted July 1984**

BODY BELTS AND SAFETY STRAPS

DESCRIPTION AND USE

CONTENTS PAGE

CONTENTS PAGE

1. GENERAL

1.01 This section describes the standard fabric body belts and safety straps, and covers instructions and precautions pertaining to their use and care.

1.02 This section is reissued to include design changes for the D, E, and F body belts. These changes are as follows:

(a) Relocate wrench keeper and tool loops (D and E belts)

(b) Combine identification and instruction plates into one tag identified as a nameplate (D, E, and F belts)

(c) Relocate tool loops and holster tabs (F belt).

Revision arrows are used to emphasize the more significant changes.

1.03 Although leather belts have been rated Manufacture Discontinued (Mfr Disc.), a large number of belts are still in use and, therefore, the precautions, inspection, and maintenance procedures will still be covered in this section.

1.04 The degree of comfort and satisfactory service an employee obtains from a body belt depends to a large extent on the locations of the Dee rings with respect to the prominent portions of the hip bones. The Dee rings should be slightly in front of the prominent portions of the hip bones. To obtain a

**Reprinted to comply with modified final judgment.

Printed in U.S.A.

properly fitting belt, measure the distance across the back of an employee to the desired locations of the Dee rings and order a belt of the size nearest to this dimension.

1.05 Information on tool holsters and the handline carrier for use with a body belt is covered in Section 081-720-111.

2. DESCRIPTION

D AND E BODY BELTS

2.01 ◊The D and E body belts have all strength members made of six-ply neoprene-impregnated nylon fabric and are equipped with a leather or leather-substitute cushion, a buckle, Dee rings (for attachment of a safety strap), tape thong, wrench keeper, loops to accommodate tools, and provisions for attaching a holster. The D body belt is illustrated in Fig. 1. The E body belt is identical to the D body belt except it is equipped with four wire rings for use with suspenders or a waist belt.

2.02 These belts are available as a "left" or "right" belt in the sizes, dimensions, and weights listed in Table A. The "right" belt is shown in Fig. 1; for a "left" belt, the position of the buckle, wrench keeper, and tape thong are reversed.

2.03 These belts are constructed with a contrasting colored center marker between the plies of the fabric makeup. ***Exposure of the center marker (due to wear or cutting) indicates the belt must be removed from service.***

F BODY BELT

2.04 The F body belt (Fig. 2) is a light-weight belt made of six-ply neoprene-impregnated nylon fabric and is equipped with a buckle, Dee rings (for attachment of safety strap), and loops to accommodate tools. This belt has tabs for attaching holsters. The belt is available in the sizes, dimensions, and weights listed in Table B.

2.05 Like the D and E belts, the F belt is constructed with a contrasting colored center marker between the plies of the fabric makeup. ***Exposure of the marker (due to wear or cutting) indicates the belt must be removed from service.***◊

The F body belt has exposed rivits on the inside of the belt and shall not be worn by a person in line work.

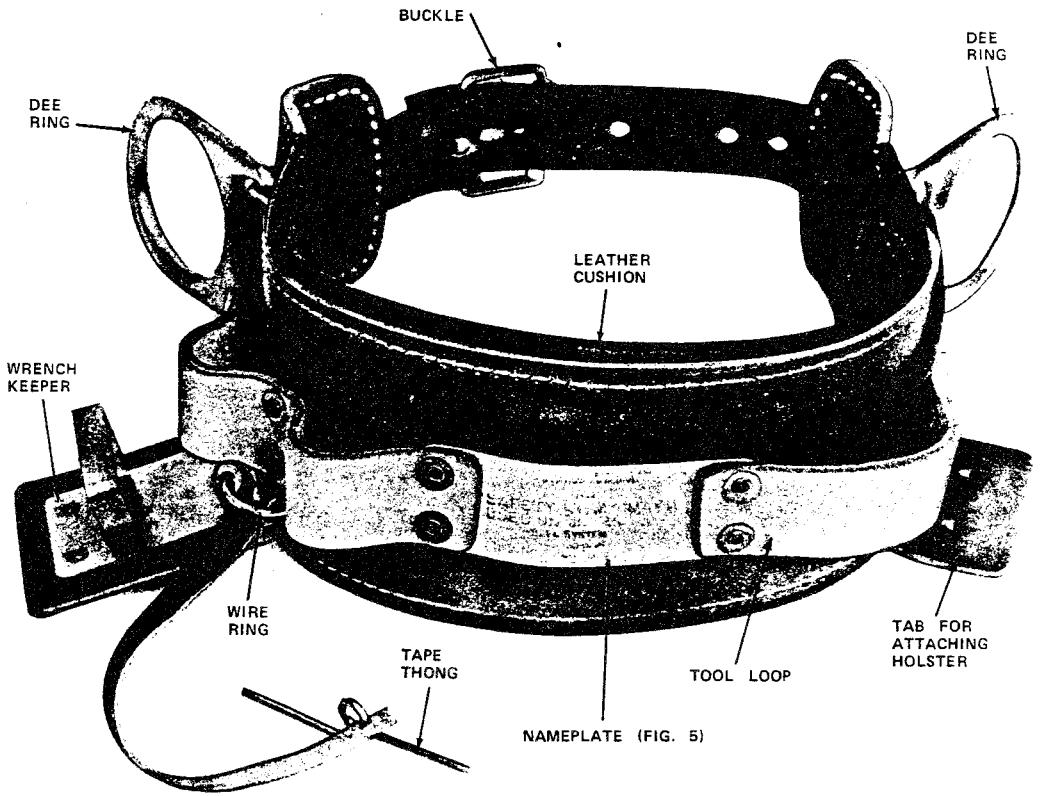


Fig. 1—D Body Belt (Right Belt Shown)

▮TABLE A◖

D AND E BODY BELTS
(SIZES, DIMENSIONS, AND WEIGHT)

SIZE DESIGNATION (DISTANCE BETWEEN DEE RINGS) (INCHES)	BELT LENGTH EXCLUDING BUCKLE (INCHES)	NUMBER OF TOOL LOOPS	APPROX. WEIGHT (POUNDS)
18	38.0	3	3.8
20	42.0	3	4.0
22	46.0	4	4.2
24	50.0	4	4.5
26	52.0	4	4.8
28	54.0	4	4.8

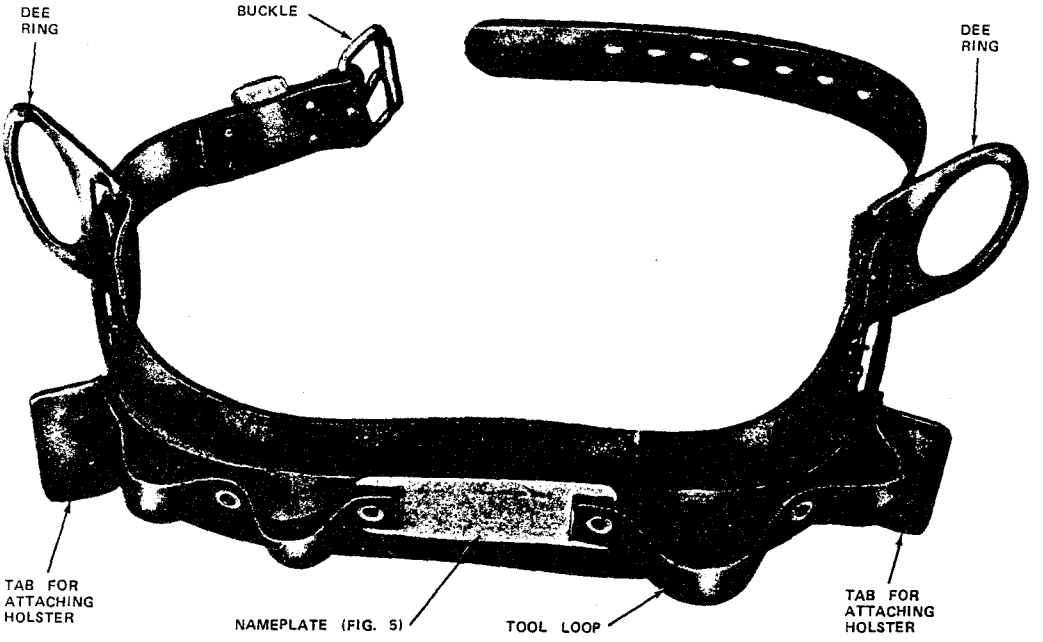


Fig. 2—F Body Belt

TABLE B

F BODY BELT
(SIZES, DIMENSIONS, AND WEIGHT)

SIZE DESIGNATION (DISTANCE BETWEEN DEE RINGS) (INCHES)	BELT LENGTH EXCLUDING BUCKLE (INCHES)	NUMBER OF TOOL LOOPS	APPROX. WEIGHT (POUNDS)
20	42.0	3	2.6
22	46.0	4	2.9
24	50.0	4	3.2
26	52.0	4	3.4

D SAFETY STRAP

2.06 The D safety strap is a six-ply neoprene-impregnated nylon fabric strap. Between the center plies is a marker of contrasting color from that of the outer plies. ***Exposure of the marker by wear or cutting is cause for the strap to be removed from service.***

2.07 The D safety strap (Fig. 3) is available in one size only. It is adjustable in increments of 1-1/2 inches from 36 inches to 61-1/2 inches.

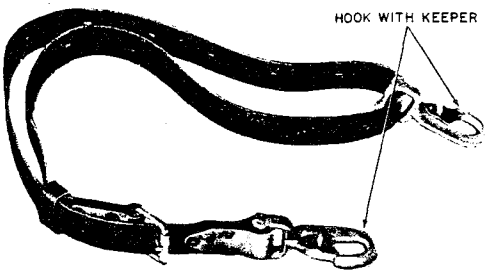


Fig. 3—D Safety Strap

3. PRECAUTIONS

3.01 A body belt and safety strap must be worn when working more than 4 feet above ground level on:

(a) Poles (including stepped poles)

(b) Lashed ladders placed against suspension strand or other support

(c) Truck ladder platforms

(d) Ladder platforms

(e) Aerial platforms

(f) Pole platforms

(g) Aerial lift baskets

(h) Cable car

(i) Towers

(j) Terminal balconies.

3.02 The safety strap, when used as a safety line, should be as short as practical to minimize the potential falling distance.

3.03 Before climbing a pole, see that the tongue of the buckle is properly seated in the desired hole in the safety strap.

3.04 Do not allow a body belt or safety strap to be run over by trunks, trailers, rails, or other heavy equipment or be subjected to damage caused by heavy falling objects.

3.05 Never punch extra holes in the tongue of a body belt. If a belt does not fit properly, replace it with one of a correct size.

3.06 Never add any foreign attachment to the body belt and never carry tools or materials in the Dee ring. Tools or materials fastened to a foreign attachment or Dee ring could prevent proper engagement of the snap hooks or give a false indication of a snap hook engagement.

3.07 Never attach two or more safety straps together for additional length. If one safety strap is not long enough, the method of doing the work shall be changed.

3.08 When climbing or working on a pole, do not fasten a handline directly to the body belt or to tools carried in the belt. With the handline fastened to the belt, the employee could be pulled off the pole if the handline should be caught either on an obstruction or a passing vehicle. To allow the handline to pull free of the belt, use one of the following methods to carry a handline aloft:

(a) Form the end of the handline into a loop and place the loop in the handline carrier.

(b) Form the end of the handline into a loop and tuck the loop under the belt at the side or back so as not to interfere with climbing.

3.09 Prior to ascending to an elevated level, employees must determine whether any energized power wires or attachments are in the immediate work area. If present, additional protective equipment and precautionary measures are to be used.

Note: Minimim approach distances to exposed energized power conductors are covered in Sections 460-300-115 and 620-100-011.

3.10 An employee may improve one's security by placing the safety strap around the pole at a

point directly above a crossarm, strand, pole step, or other secure attachment which is to remain in place on the pole, provided the attached is one foot or more from the top of the pole. Do not place a strap around an insulator pin, a bolt, or other insecure attachment.

3.11 Never use electric light, power, or foreign signal circuit attachments as supports for the safety strap.

3.12 When "belting in" with the safety strap, do not rely on the feel or click of the snap hook keeper as an indication that the snap hook is secured. See that the snap hook and Dee ring are properly engaged. The employee shall look and ***know*** that the snap hook is properly engaged before placing weight on the strap. Always have the keeper on the safety strap away from the body when engaged in the Dee ring (Fig. 4).

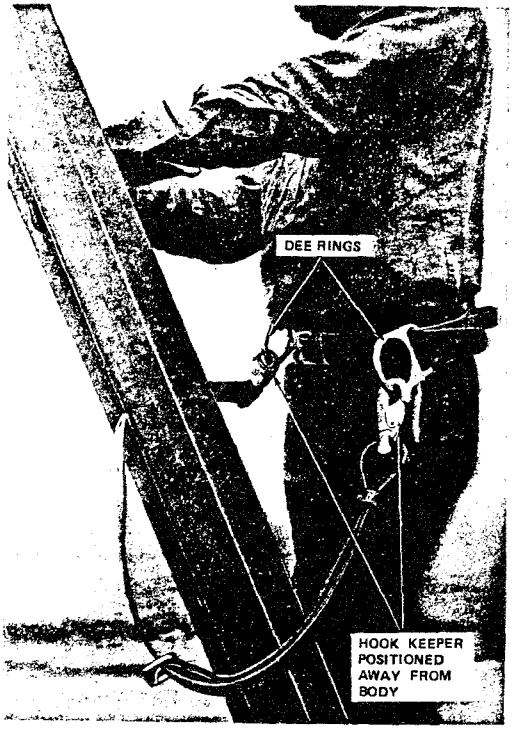
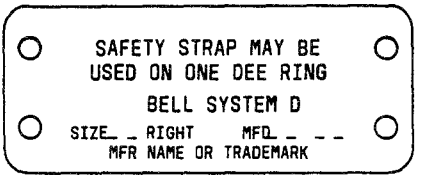
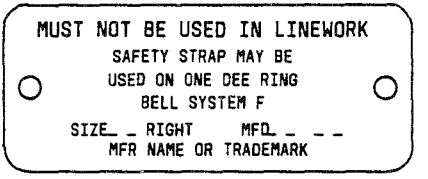


Fig. 4—▶Method of Using Safety Strap When Working From Ladder◀

3.13 An employee shall never be secured with a safety strap that is placed around a pole, strand, or other support in such a manner that both snap hooks are engaged in the same Dee ring of the body belt except in specific instances covered in this practice and then only when using the D, E, or F body belts. The D, E, and F belts may be readily identified by a metal ▶nameplate◀ as shown in Fig. 5.



D AND E BODY BELT NAMEPLATE



F BODY BELT NAMEPLATE

Fig. 5—▶Body Belt Nameplates◀

3.14 The following additional precautions are to be observed:

(a) Exercise care when working aloft so the keeper of the snap hook is not depressed accidently by contact with wires, strand, crossarm braces, guys, and other attachments in the course of performing work operations.

(b) A safety strap should never be used as a means of riding suspension strand.

(c) Never use an improvised substitute of rope, wire, etc, for a safety strap or body belt.

(d) Do not punch extra holes in a safety strap.

(e) While wearing a safety strap which is not in use, both ends of the safety strap must be snapped into the same Dee ring. Care should be exercised to see that the safety strap does not catch on pole steps and other attachments when climbing poles.

(f) When climbing past another employee who has the safety strap around the pole, exercise care to avoid dragging the climber gaff over the safety strap.

(g) Avoid swinging rapidly around the pole in a safety strap.

(h) Do not throw or drop a body belt or safety strap.

(i) Exercise care to prevent damage to a body belt or safety strap from heat by contact with or placing it near a furnace, hot solder pot, torch, or hot soldering iron.

3.15 The following should be observed when storing a body belt and safety strap.

(a) Keep away from radiators, stoves, steam pipes, fires, and other places of excess heat.

(b) Do not store in a locker, box, tool case, or other container until it has been completely dried by wiping and ventilation.

(c) Never store with unprotected edged tools. When stored in the same compartment, edged tools, such as climbers, must be properly protected.

(d) Do not store in a location with excess humidity to prevent mildew.

4. INSPECTION

4.01 Each employee, when receiving a body belt or safety strap and each day prior to use, must inspect the belt and strap for evidence of wear or any defects. If any condition exists that raises any doubt as to its safety, it should be exchanged at once for one in good condition. A body belt or safety strap should never be subjected to proof load tests.

4.02 Employees whose work assignments require the use of a body belt and safety strap shall be responsible to verify that these devices are in good condition.

4.03 Supervisors shall ensure themselves that craft employees perform a visual inspection daily. Body belts and safety straps are to be inspected each quarter by supervision.

VISUAL INSPECTION OF BODY BELT

A. Fabric and Leather Type

4.04 The important conditions to look for are:

(a) Badly worn or broken reinforcement plates which hold the Dee ring. ▶To check for this condition, refer to Fig. 6 and move the Dee ring from Position 1 to Position 2, using light finger pressure. The rotation of the Dee ring shall not exceed 90 degrees.◀

(b) The condition of the loop (leather or nylon) at the Dee ring reinforcement plates, which could be worn or crushed sufficiently to affect its strength. (Exposure of the contrasting colored marker in a fabric belt is cause for rejection)

(c) Loose or broken rivets (particularly those in the loops holding the Dee rings)

(d) Broken or rotted threads in the stitching

(e) Cracks or cuts that would tend to cause a tear or would affect the strength of the belt

(f) Broken or defective buckle

(g) Exposure to excess heat (burn marks, hard spots, etc).

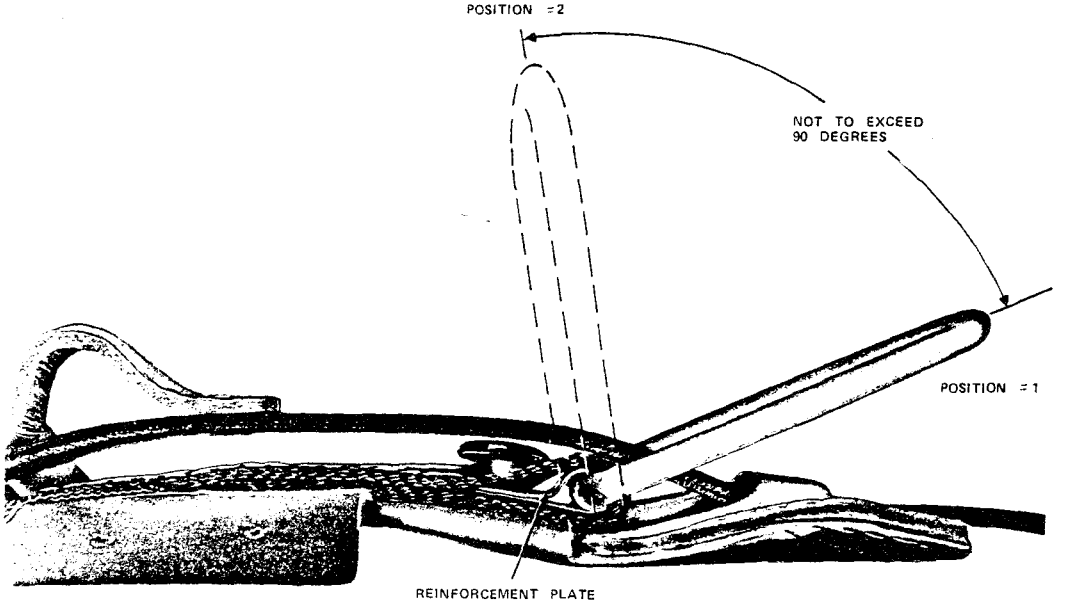


Fig. 6—▶Checking for Worn or Broken Reinforcement Plates◀

B. Leather Belts—Bending Test

Leather belts which are not padded and have exposed rivets on the inside of the belt shall not be worn by a person engaged in line work.

4.05 The bending test should be made on leather body belts only when clean and well oiled. The leather should show no cracks other than slight surface cracks. If well-defined cracks appear, the belt must not be used, but should be taken out of service. The test should not be made if the body belt has been stored in an area where the temperature is below 32 degrees F since at low temperatures, the leather may be damaged by bending it around the test mandrel. Place the belt in a warm area until the belt temperature is above 32 degrees F. The bending test should be made as follows:

(a) Leather should be bent with the grain (smooth) side out, over a mandrel that is not less than 3/4 inch in diameter. (A 3/4 inch guy rod may be used.) In making this test, pull the leather taut and wrap it half way around the mandrel, keeping the leather under tension while the bend is being made. This procedure brings the leather into firm contact with the mandrel while the bend is being made and, thus, avoids bending the leather too sharply. Do not loop the leather first and then pull it over the mandrel. Do not make the bend test at a buckle hole.

(b) Body belts shall be subjected to the bending test at points where it is possible to bend them, such as under the leather tool loops and at the tongue strap.

4.06 If leather of the thickness used in standard body belts is subjected to an excessively severe test, such as bending it too sharply (without a mandrel or over too small a mandrel) with the grain side out, even good leather may crack because of excess strain.

VISUAL INSPECTION OF SAFETY STRAP

4.07 The following important conditions to look for are:

(a) Broken, cut, or torn outer fibers and nicks, punctures, or charred spots, etc, that would affect the strength of the strap. The edges of the strap should be inspected carefully.

(b) Worn fabric as indicated by the colored marker when three outer layers of fabric are worn through. The strap shall be removed from service as soon as the contrasting colored marker becomes visible.

Note: All leather safety straps are to be removed from service and junked.

(c) Loose, broken, or missing rivets or rivets with excessive wear. Remove from service.

(d) Broken or badly worn steel guard on ends of safety strap. Remove from service.

(e) Defective buckle or binding, or poor action of the keeper on the snap hook. The keeper should work freely without excessive side play and close securely under spring tension. Check for any elongation in the metal at the rivet holding the keeper in place.

(f) Acid burns—a strap that has been in contact with acid shall be removed from service.

(g) Holes for tongue of buckle excessively enlarged.

(h) Broken inner fibers—defects are usually found in the section at which an injury occurred. Breakage of the inner fibers is indicated by limpness and flexibility of the strap. The strap should be examined in short sections and if a soft flexible section is found, the strap should not be used.

5. USE

ON POLE

5.01 An employee working from a pole shall be secured with a body belt and safety strap. To accomplish this, attach one snap hook to a Dee ring and pass the free end of the strap around the pole. The strap should lay flat against the pole without turns or twists. Engage the snap hook in the other Dee ring.

ON AN EXTENSION LADDER

5.02 An employee working from an extension ladder that is securely lashed to a suspension strand or other support shall use one of the following methods to be secured with a body belt and safety strap.

Attach one snap hook of the safety strap to a Dee ring and pass the free end of the safety strap to either one of the following:

(a) Between two rungs and around a siderail (Fig. 4), or

(b) Around a rung, or

(c) Around the suspension strand and engage the snap hook in the other Dee ring.

5.03 An employee working from an extension ladder which is properly placed and secured to the strand with strand hooks, but not lashed, shall use the following method to be secured with a body belt and safety strap.

Attach one snap hook of the safety strap to a Dee ring and pass the free end around the strand and siderail, between two rungs. Engage the snap hook in the other Dee ring.

5.04 A body belt and safety strap are not to be used on a ladder if:

(a) The ladder is not secured in the manner described in paragraph 5.02 or 5.03.

(b) The safety strap cannot be secured in the manner described in paragraph 5.02 or 5.03.

ON AN AERIAL PLATFORM

5.05 An employee working from an aerial platform, supported by a suspension strand or other support, shall be secured with a body belt and safety strap using one of the following methods:

(a) The straps of the D, E, and F body belt are constructed of material that is of sufficient strength to allow the safety strap to loop the strand and have both snap hooks attached to the same Dee ring as shown in Fig. 7. The method shown is not to be used with any body belt other than the D, E, or F body belts.

Fig. 7—Method of Using D, E, or F Body Belt With Safety Strap

(b) If a belt other than the D, E, or F is being used, attach one snap hook to a Dee ring and pass the free end across the front of the body, through the other Dee ring, and engage the snap hook on the suspension strand. Figure 8 shows this method.

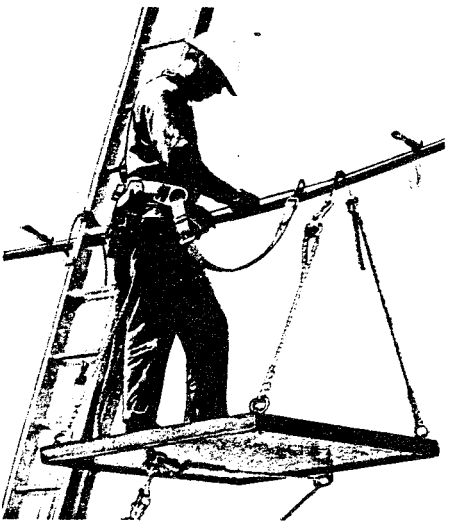


Fig. 8—Method of Using Safety Strap When Using Other Than a D, E, or F Belt

ON A TRUCK PLATFORM

5.06 An employee working from a truck platform shall loop the safety strap to the platform framework unless the platform is equipped with safety chains. If safety chains are provided, the chain shall be attached to the Dee rings of the body belt.

ON AN AERIAL LIFT

5.07 An employee working from the basket of an aerial lift shall be secured in the basket. When working from a SERVI-LIFT or SKYWORKER aerial lift, the employee shall be secured by attaching the safety strap to the eye (Fig. 9) provided in the basket. When working from a TELSTA aerial lift, use the method shown in Fig. 10.

POLE-MOUNTED TERMINALS—WITH HANDLES

5.08 Employees shall secure themselves to the handle of pole-mounted terminals, such as B, 101, and 29-type cabinets, prior to stepping from the pole to a pole seat or terminal balcony. Likewise, when stepping from a pole seat or terminal balcony to the pole, the safety strap shall not be removed from the handle until the employee has stepped onto the pole. Figure 11 shows the safety strap secured to one Dee ring, which is possible when using a D, E, or F Body Belt. All other belts must have the snap hook of the safety strap secured to a Dee ring, across the front of the body and through the other Dee ring, and then secured to the terminal handle.

> ***Note:*** If the work aloft is to be performed from a sitting position on the terminal seat or balcony, it will be necessary to lengthen the safety strap at the ground level prior to ascending the pole.

6. MAINTENANCE

FABRIC BODY BELTS

6.01 Tests indicate that creosote is not injurious to nylon; however, because the creosote may stain clothing, it should be removed as soon as practicable using a cloth moistened with petroleum spirits or other approved cleaner.

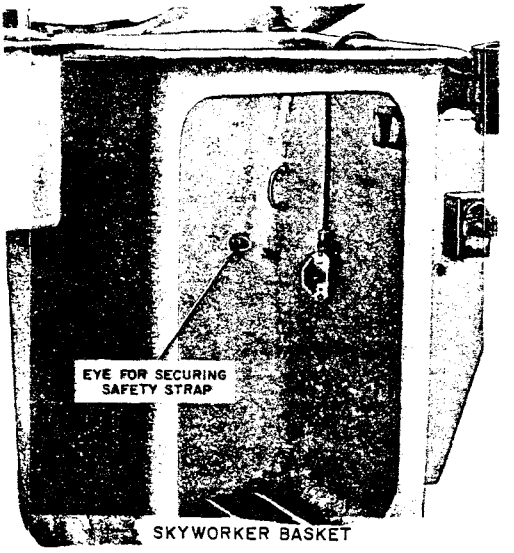


Fig. 9—Location of Eyes for Securing Safety Strap in Baskets of SKYWORKER and SERVI-LIFT Aerial Lifts

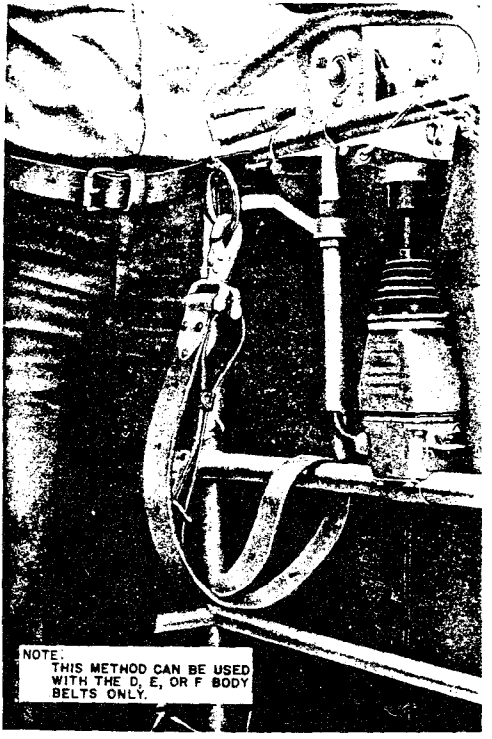


Fig. 10—Method of Using D, E, or F Body Belt With Safety Strap in TELSTA Aerial Lift

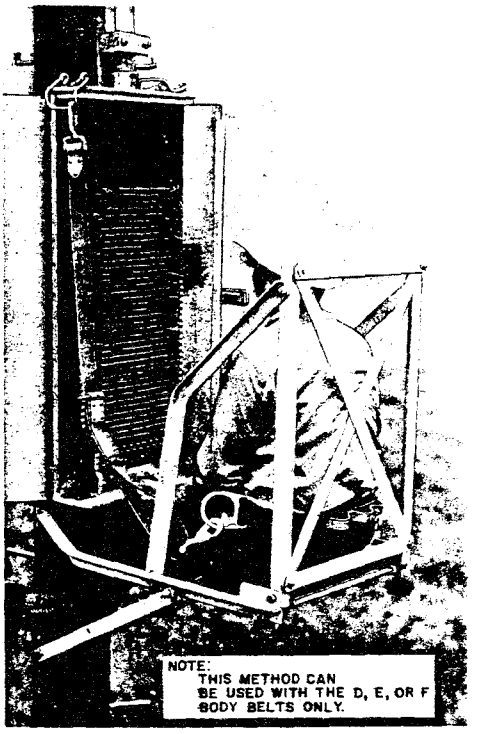


Fig. 11—Method of Using D, E, or F Body Belt With Safety Strap on B-Type Cross-Connecting Terminal

LEATHER BODY BELTS

A. Cleaning

6.02 Leather body belts should be cleaned and dressed at three-month intervals or more often if the belt has been wet from rain or perspiration or has been in contact with wet paint.

6.03 Paint ingredients have a harmful effect on leather. Wet paint must be removed as soon as possible.

6.04 Creosote is not harmful to leather. To avoid clothing stains, it should be removed as soon as possible.

6.05 Leather body belts may be cleaned as follows:

(1) Remove surface dirt with a sponge dampened, but not wet with water. Do not use gasoline or petroleum products because they will cause the leather to become dry.

(2) Rinse the sponge in clear water and squeeze partially dry. Work up a thick lather using a neutral soap, such as castile or white toilet soap (free from alkali).

(3) Thoroughly wash the entire length of the belt with the lathered sponge to remove embedded dirt and perspiration and wipe with a cloth to remove excess moisture.

(4) Repeat (2) using a good grade of saddle soap.

(5) Work the saddle soap lather well into all parts of the belt and place in a shaded area to dry.

(6) When the leather is practically dry, rub vigorously with a soft cloth.

B. Oiling

6.06 Treating the leather in body belts with saddle soap will normally keep the belt soft and pliable; however to keep the leather from drying out and becoming brittle, leather body belts should be oiled approximately every six months as follows:

(1) Clean the leather with neutral soap as described in paragraph 6.05 (1), (2), and (3). Oil applied to dry or dirty leather has a harmful effect on the leather.

(2) While the leather is still damp, use about 1/2 ounce (2 teaspoonsful) of Neat's-foot oil and apply the oil gradually with the hands, using long light strokes to work it into the leather. A light, even distribution of oil is desired.

(3) After oiling, the belt should be set aside in a dry shady place for 24 hours in order to permit the leather to dry slowly. Then, rub vigorously with a soft cloth to remove excess oil.

Note: Do not use mineral oils or greases such as machine oil or vaseline. Leather should never look or feel greasy as this is an indication that too much oil is being used. Leather with too much oil will stretch and is likely to pick up sand or grit which may injure the leather.

C. Disposition

6.07 A body belt or safety strap with major defects shall be withdrawn from service immediately and returned to the storeroom for disposition in accordance with established routine. To prevent any further use, cut off the tongue of a defective body belt and cut the strap of a defective safety strap to remove the snap hook.