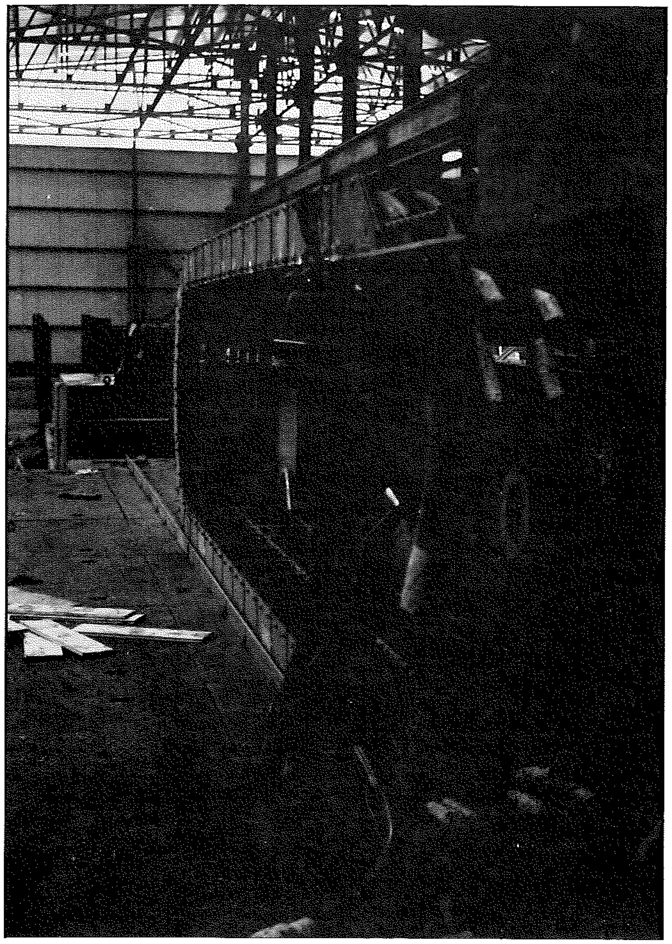
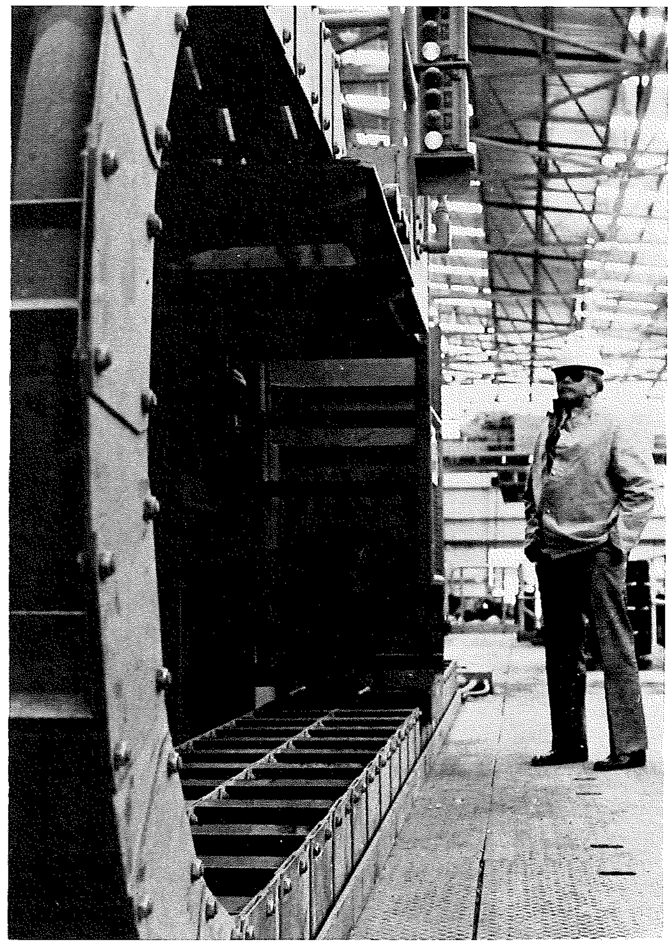
AMETEK®
PATRIOT SENSORS

8060S

CATRAC®

Assembly and Installation Instructions

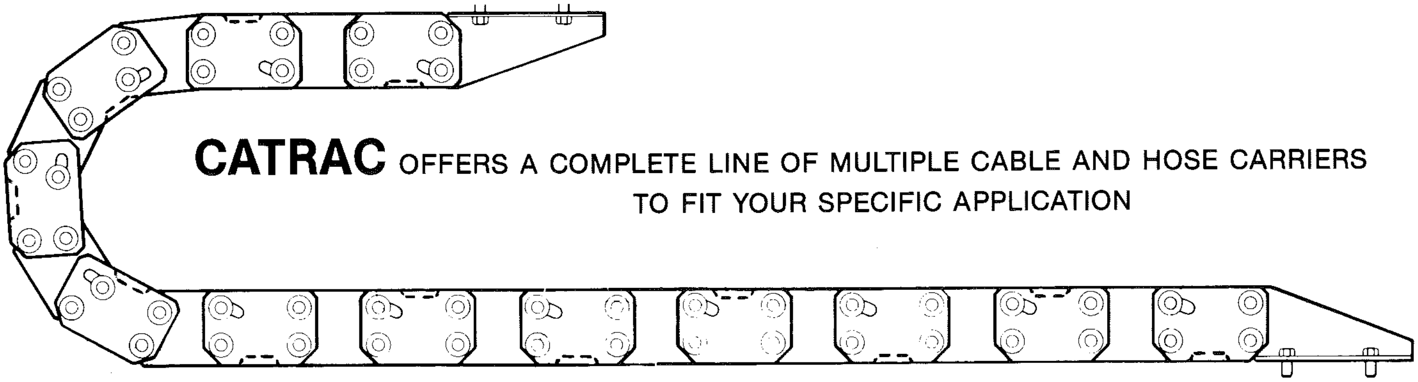




THE HEAVY DUTY CABLE AND HOSE CARRIER

CATRAC
HEAVY DUTY CABLE AND HOSE CARRIERS

Cable and Hose Carrier



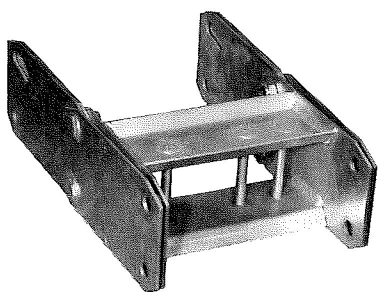
APPLICATION

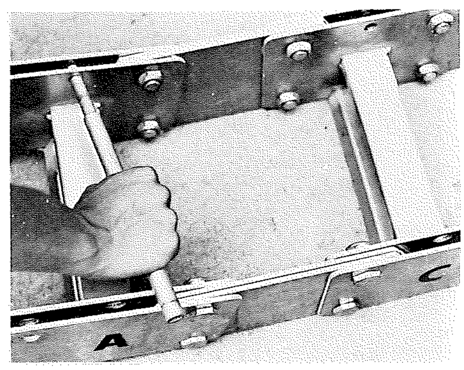
CATRAC is used on all types of machinery as a means of safely and efficiently conveying power either electrical, air or fluid, to equipment in motion. **CATRAC** is designed to be **maintenance free** and to protect cables and hoses from abrasion, wear and twisting.

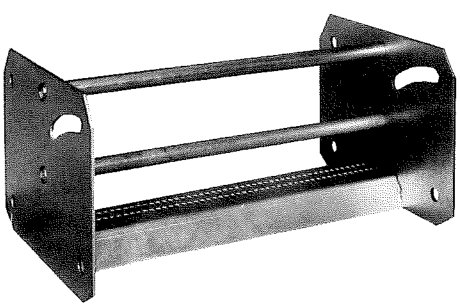
CATRAC CARRIER VERSATILITY

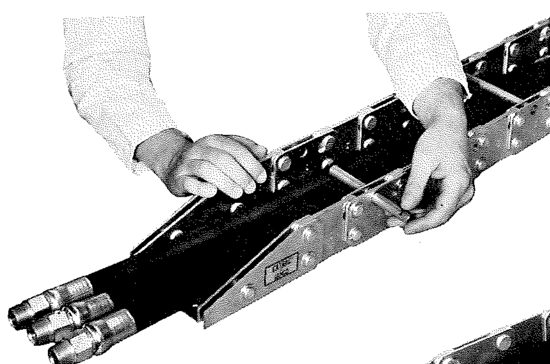
CATRAC provides ease of either adding or removal of hoses. See below for the wide selection of **CATRAC** carrier styles.

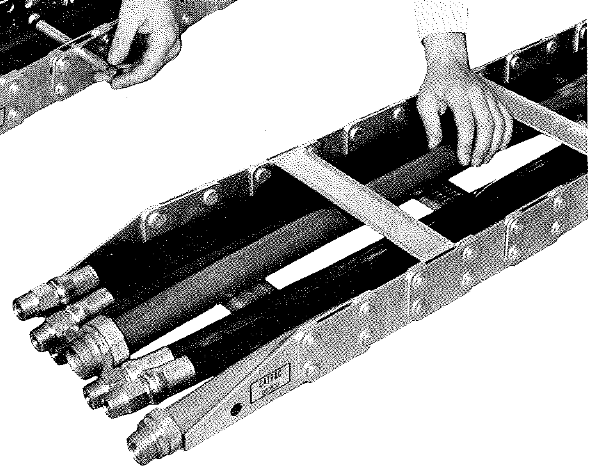
END CLAMPING

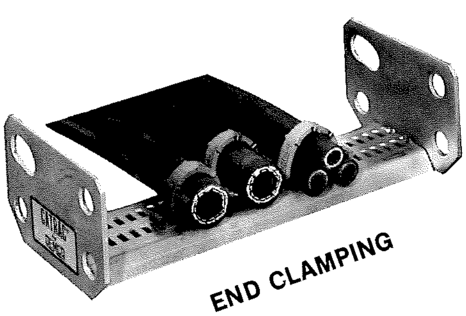












END CLAMPING

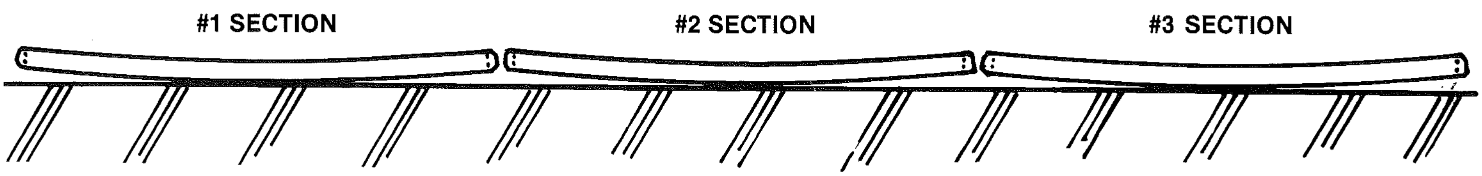
Cable and Hose Carrier

ASSEMBLING CATRAC SECTIONS AFTER SHIPMENT

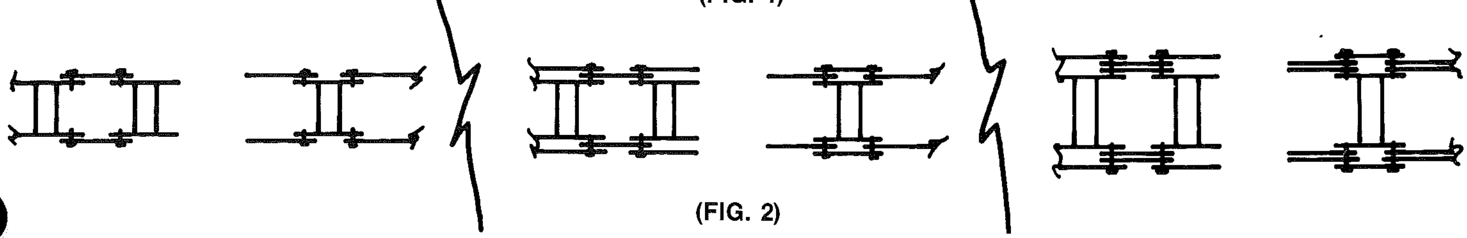
It is normal for Gemco to ship CATRAC in sections because of their length and size. Therefore, the sections must be assembled by the customer; using pins and rings (Page 5, Fig. 7) or shoulder bolts and locknuts (Page 6, Fig. 10).

ALIGNMENT OF SECTIONS

To assemble, lay the sections down on their backs, so that they form a crown as shown (Fig. 1). Match each section so they telescope together (Fig. 2).



(FIG. 1)

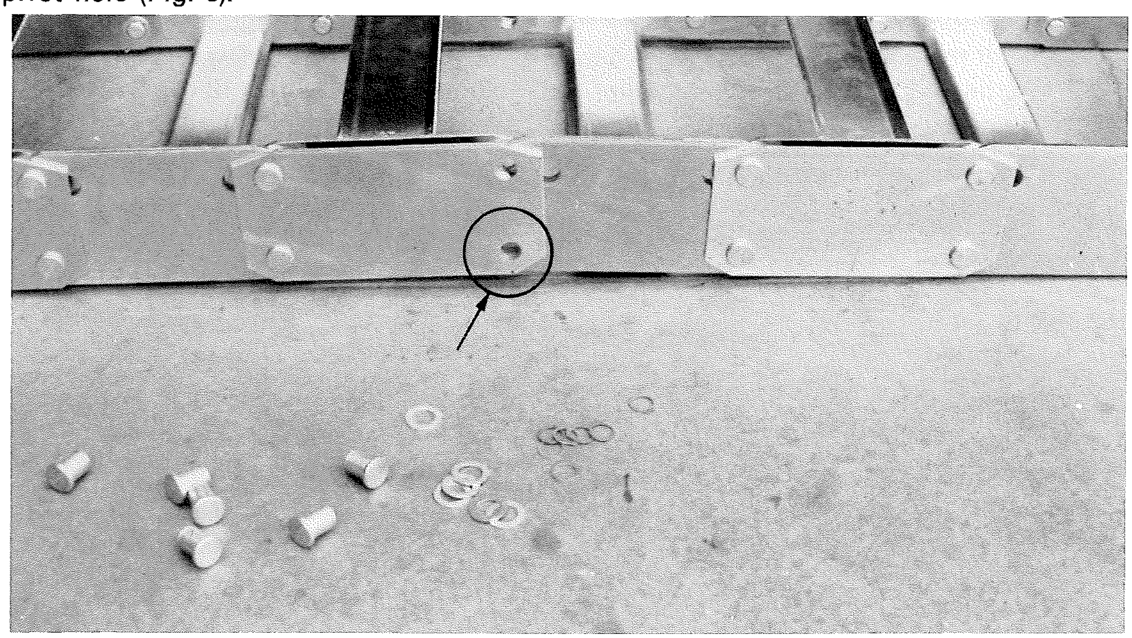


(FIG. 2)

After matching sections, first and second should be slid together, aligning the bottom pivot holes.

FASTENING SECTIONS

Place pin or bolt, following pin or bolt instructions, Pages 5 and 6, in bottom pivot hole (Fig. 3).

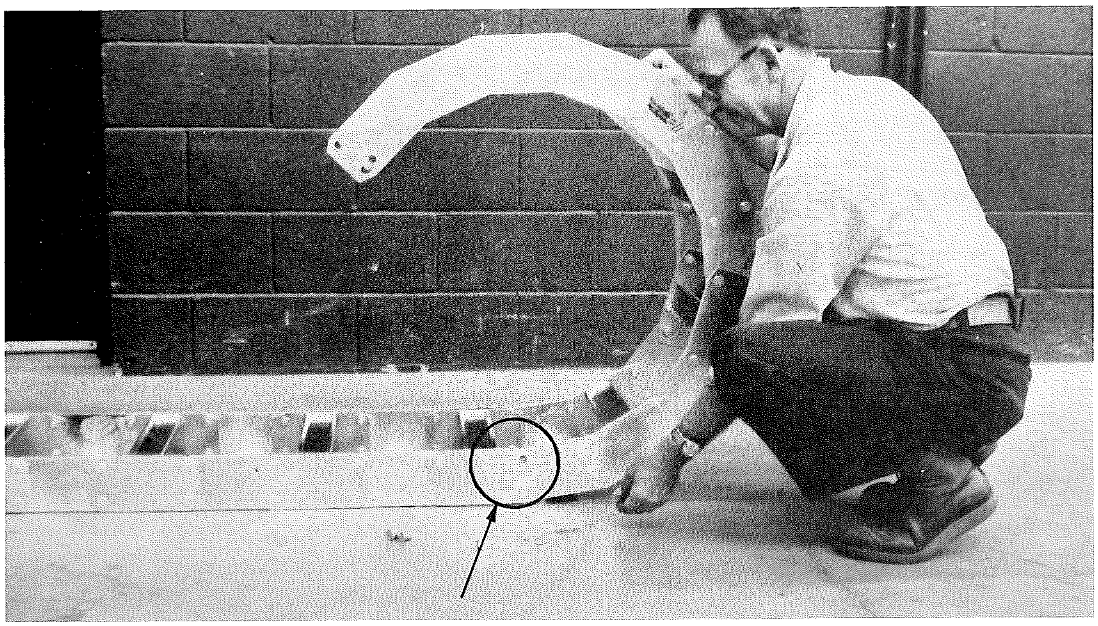


(FIG. 3)

Cable and Hose Carrier

FASTENING SECTIONS (Continued)

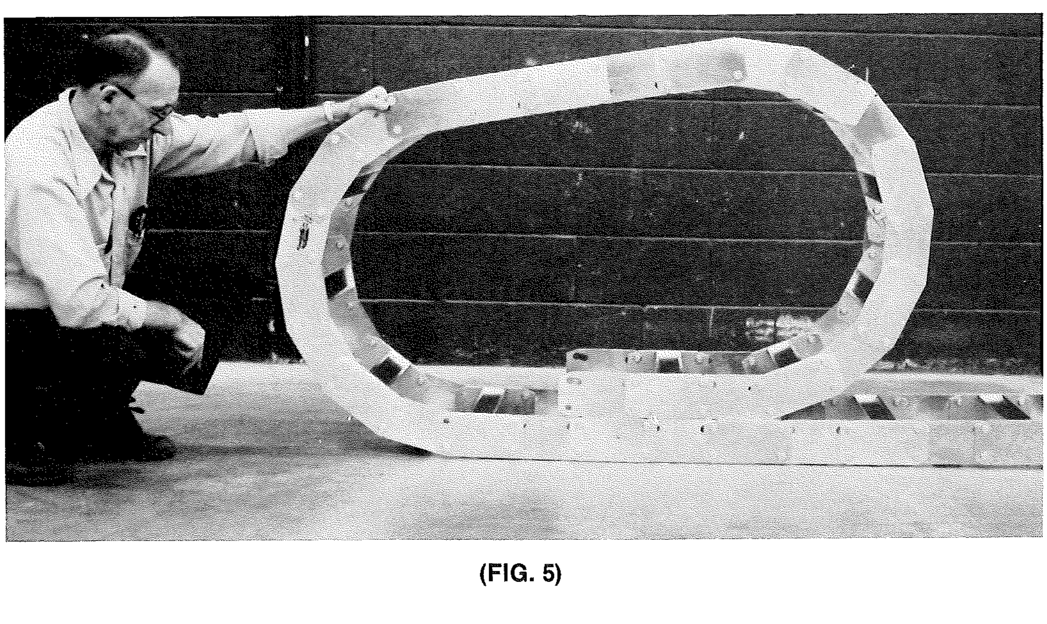
Next, install upper pin or bolt into position by rolling section #2 over section #1 until slot and hole are aligned (Fig. 4).



(FIG. 4)

NOTE: If more than two sections of CATRAC are being assembled, attach one section at a time, always rolling added section over, due to the weight of multiple sections.

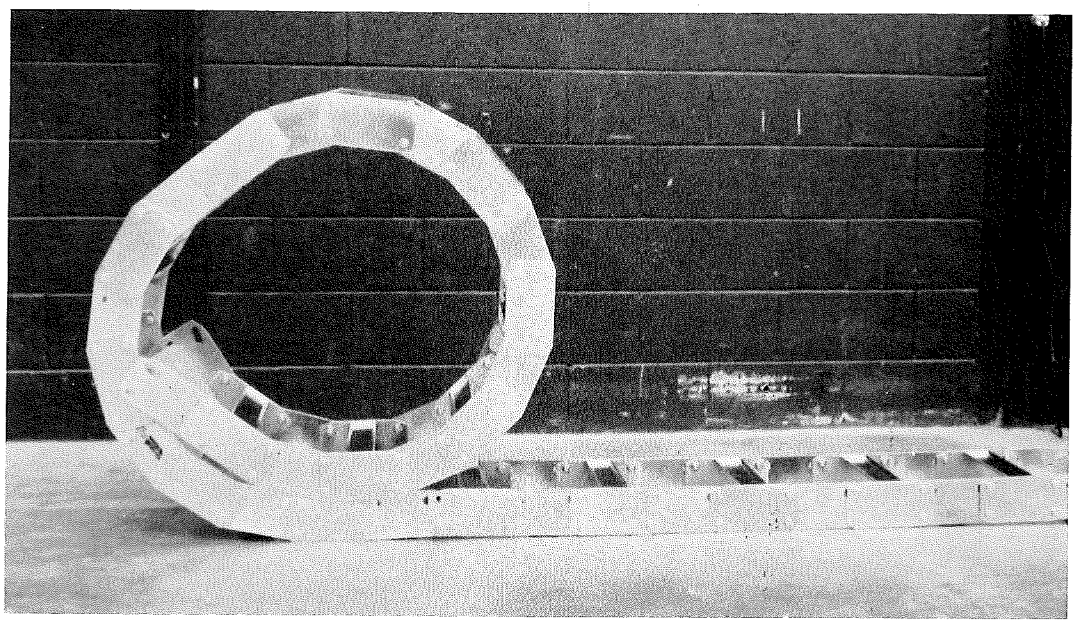
If the sections of CATRAC are long or very large, we recommend placing the section as shown (Fig. 5) for easy rolling and placement of top pin.



(FIG. 5)

Cable and Hose Carrier

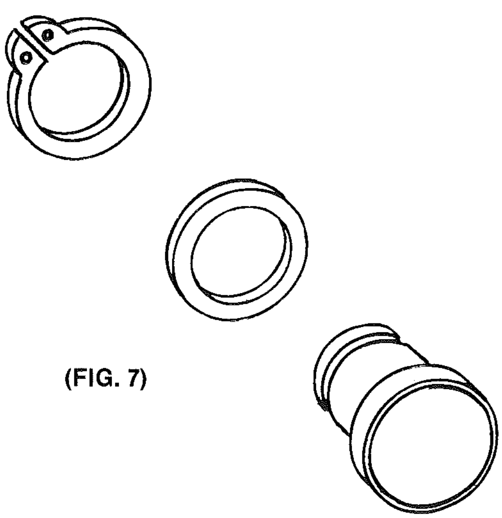
If area for assembly is confined, start at one end of CATRAC and as you add a section, roll main section into a coil (Fig. 6).



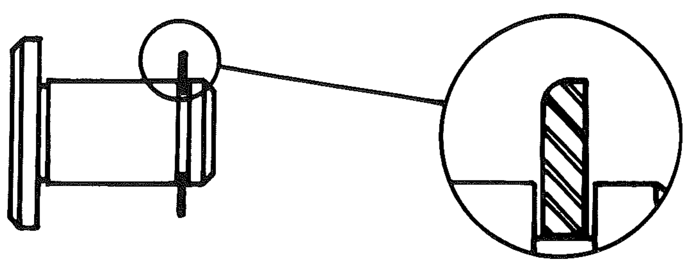
(FIG. 6)

PIN & SNAP RING CONSTRUCTION

When installing pin and snap ring fastener (Fig. 7), washer location and pin direction must match existing CATRAC sections. Make sure snap ring's sharp edge is facing away from pin head for maximum strength (Fig. 8).



(FIG. 7)



(FIG. 8)

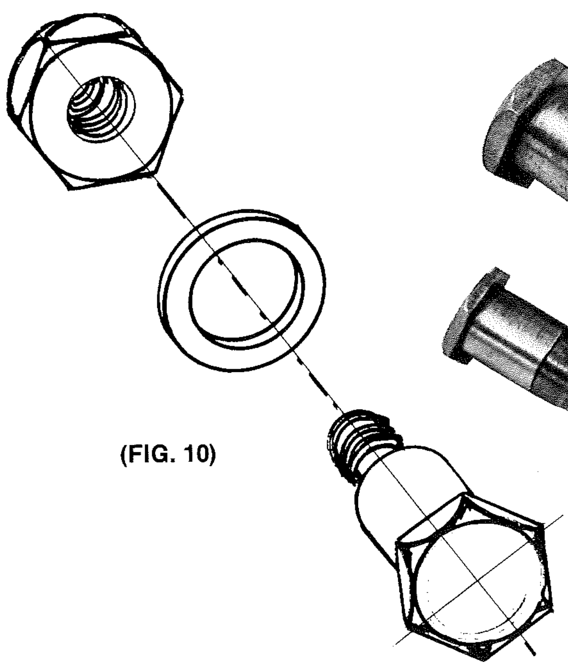
Cable and Hose Carrier

Using a pair of snap ring pliers, use care in spreading snap ring enough to clear pin diamater only; at the same time use fingertips to guide snap ring into groove on pin for a tight fit (good ring tension). (Fig. 9). NOTE: Snap rings should never be reused, since is is extremely difficult to remove them without spreading and destroying the ability of the ring to snap back.

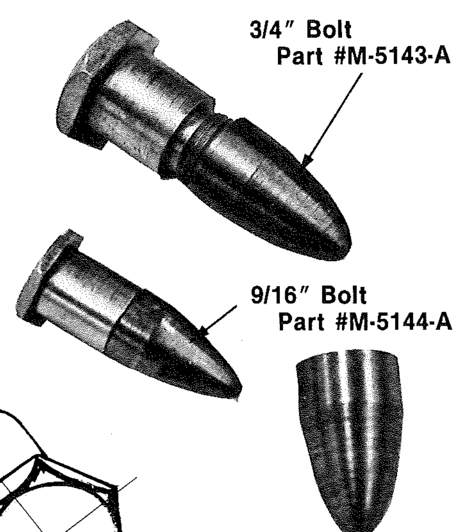
(FIG. 9)

BOLTED CONSTRUCTION

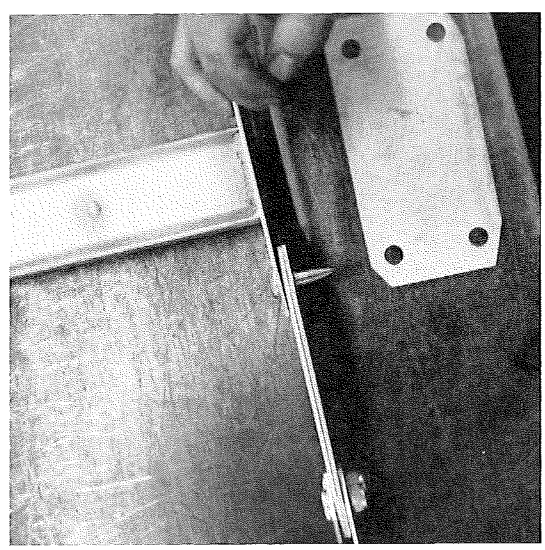
When installing bolts in a CATRAC (Fig. 10), washer location and bolt direction must match existing sections. It is important not to damage threads or shoulder while passing bolt through links. To do this, we have provided a "bullet" (Fig. 11) which fits over bolt threads allowing bolt to be tapped into place easily (Fig. 12).



(FIG. 10)



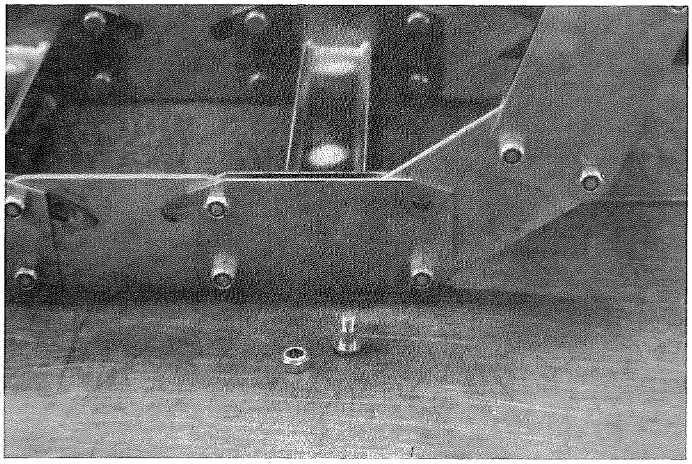
(FIG. 11)



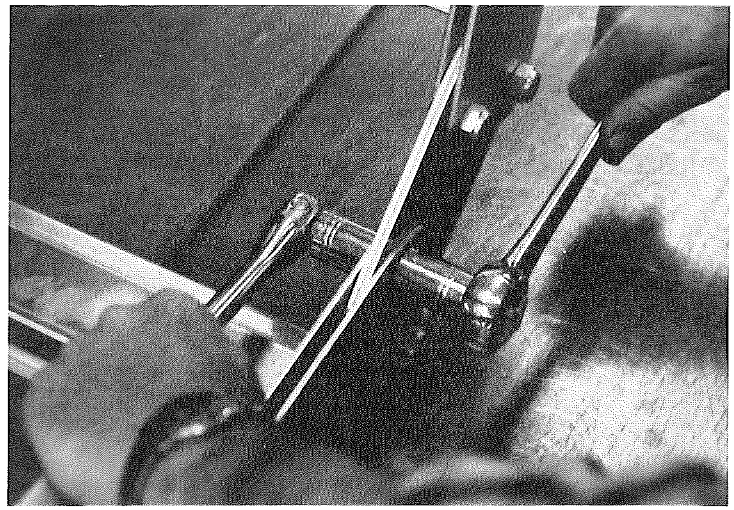
(FIG. 12)

Cable and Hose Carrier

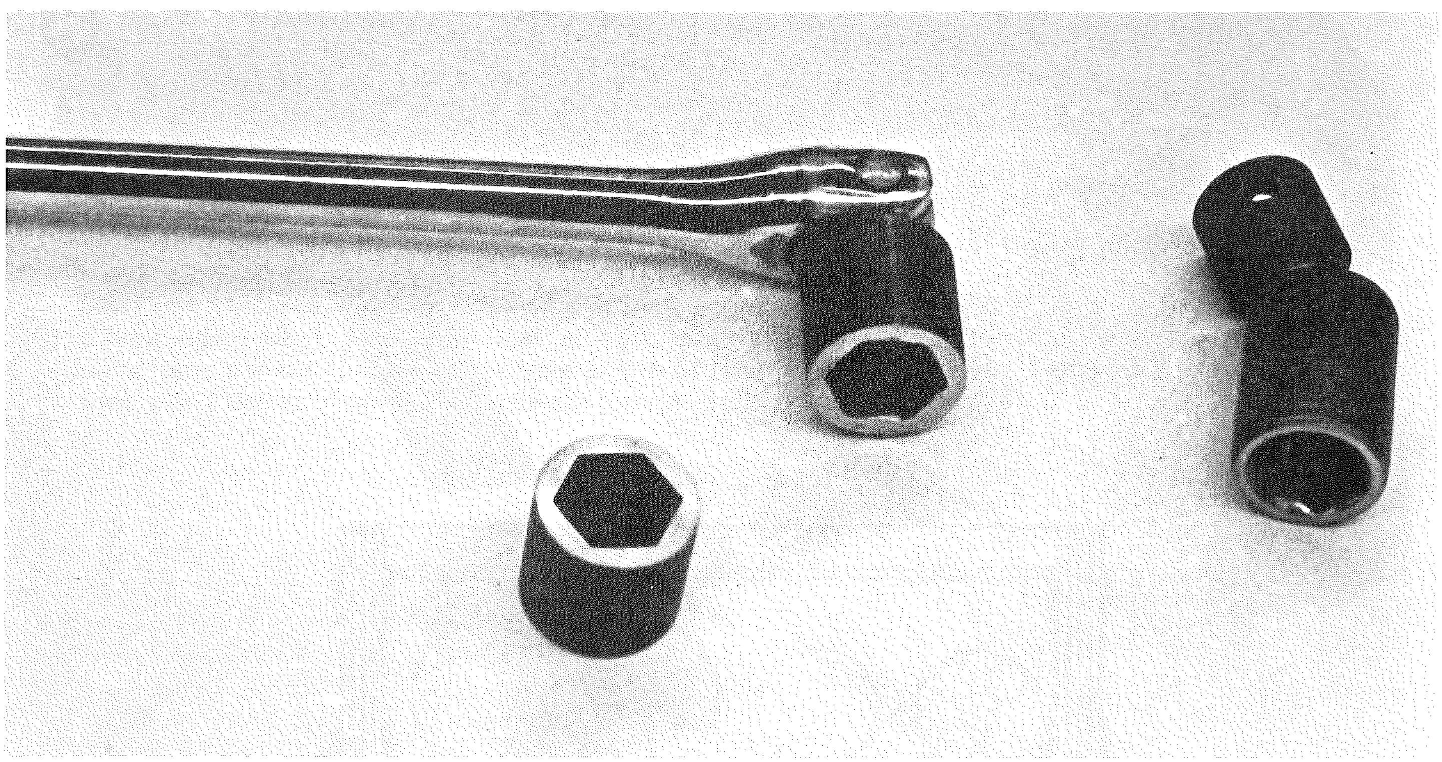
After bolt is in place remove "bullet" and install locknut using a socket (Fig. 14). To grip head of special space saver bolt it is necessary to grind down face of one socket (Fig. 15).



(FIG. 13)

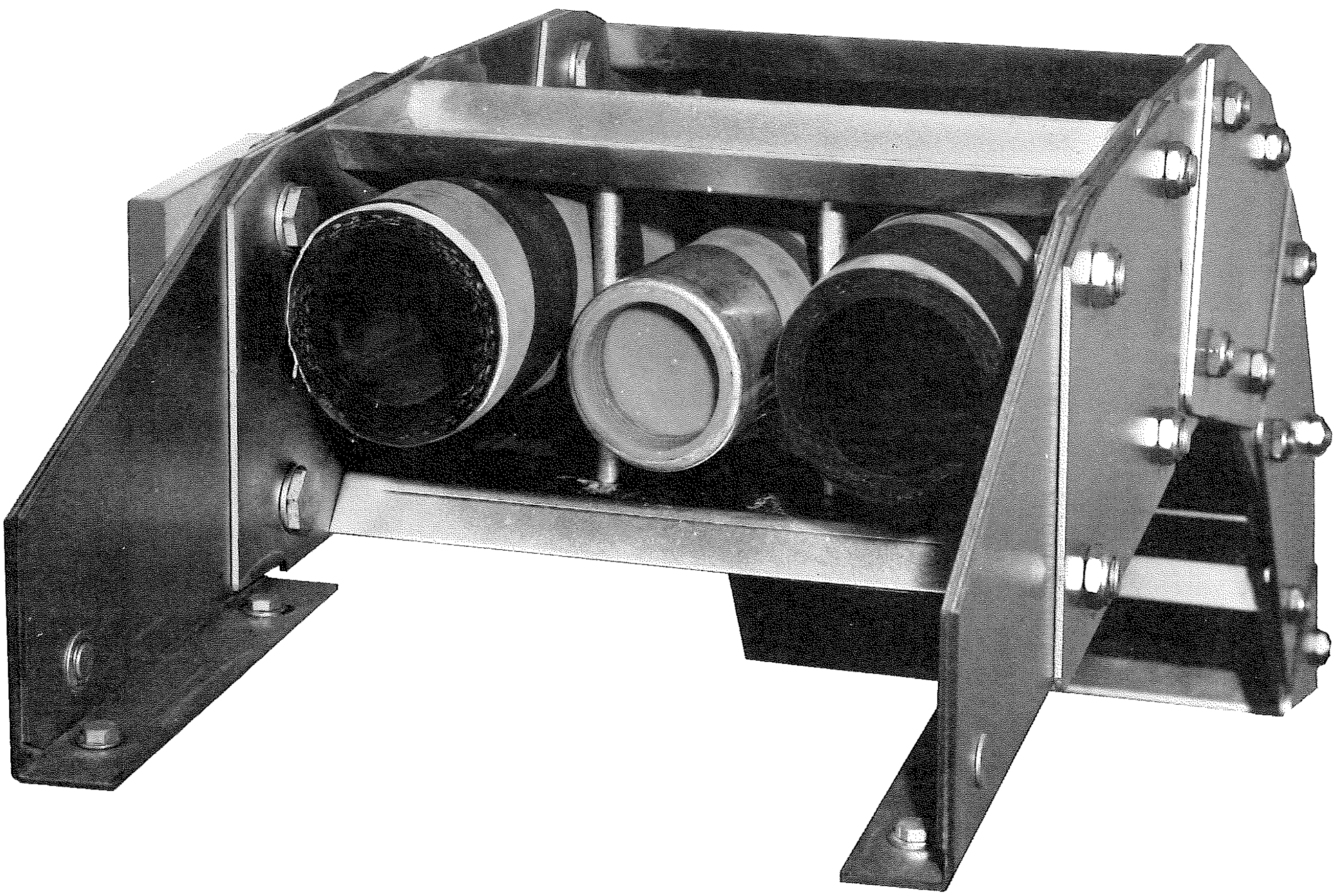


(FIG. 14)



(FIG. 15)

Cable and Hose Carrier

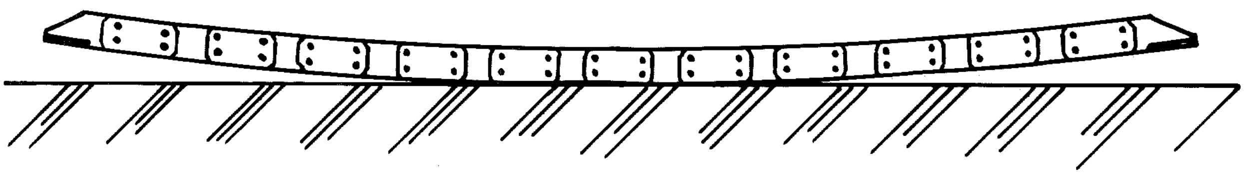


Cable and Hose Carrier

SUGGESTED HOSE & CABLE INSTALLATION INSTRUCTIONS FOR CATRAC

Step I

Lay the CATRAC out flat before installing hoses and cables.



(A) Lay out the CATRAC horizontally with the outside or backside flat, in position on base or tray.

(B) If there is not enough space for the CATRAC to be flat it is best to remove the CATRAC to a more convenient position.

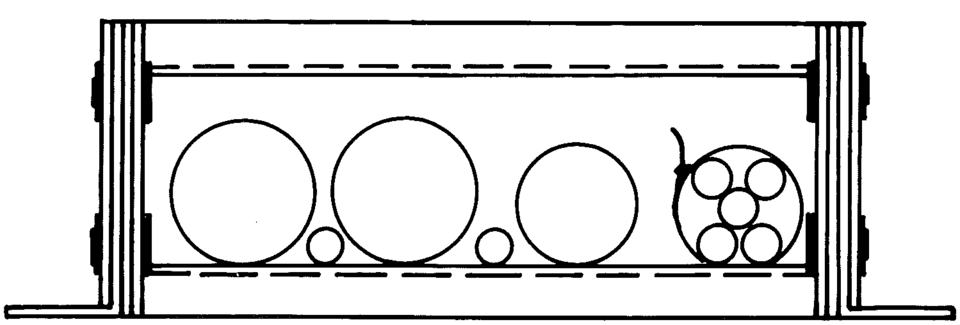
(C) If space and clearance limitations are too restricted for a flat layout, try to let the CATRAC lean back with a 90° bend at one end, usually the moving end.

Step II

Thread in, pull thru hoses and cables.

(A) Thread the hose and cable across the open carriers one at a time. If the opening is fairly tight, alternate large and small diameters to gain more free area.

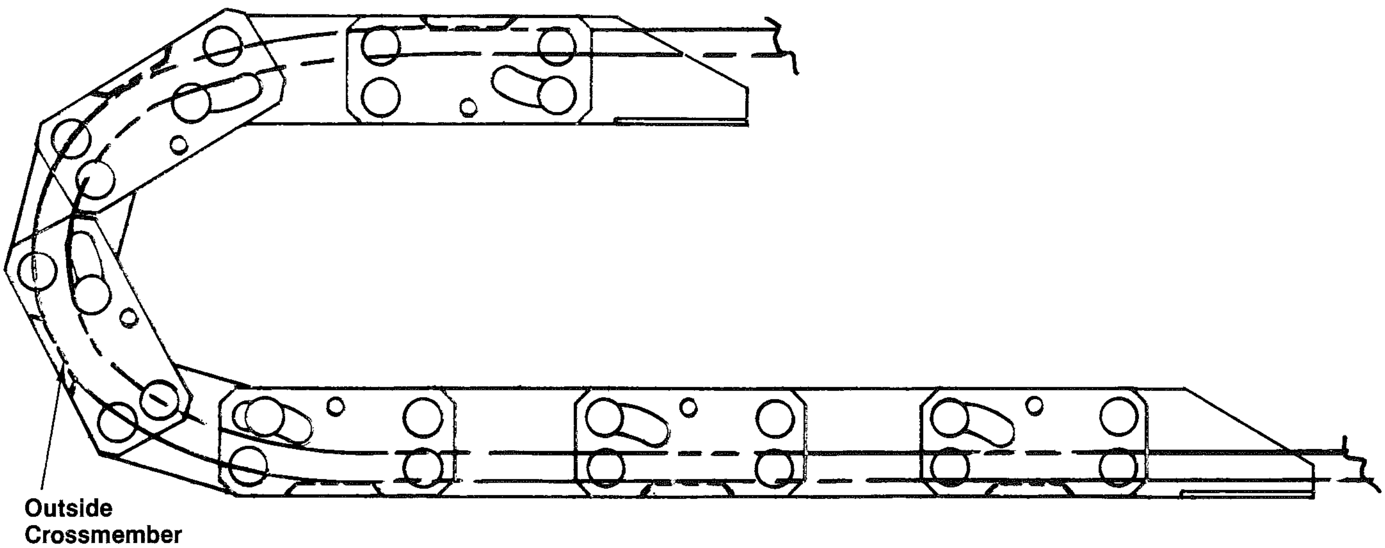
(B) If you have many small diameter electric cables, bundle them together with nylon ties or something similar. If there is only one or two of these, you may also tie them to a larger cable so they won't sag or drape down between carrier bars or rods.



Cable and Hose Carrier

(C) If you are replacing hoses or cables, you may want to tie the old one to the new one and pull the bad one out and the new one in at the same time.

(D) When replacing hoses and cables in a CATRAC that is already permanently mounted in position, make sure that the replacement is as long as the original. The normal tendency is to thread it in position and pull it tight. **Don't do it!** Push hoses and cables back against outside crossmembers (sketch below). CATRACS depend on hoses and cables being free to move and lay slack with ample carrier space; otherwise accelerated wear, snagging, and stretching occurs.



(E) Threading large size hoses and cables or threading bundles in tight spaces can be made easier by wiping the cover of the item with household detergent and it will normally slide into place with little effort.

Step III

Fasten down hoses and cables at each end of CATRAC.

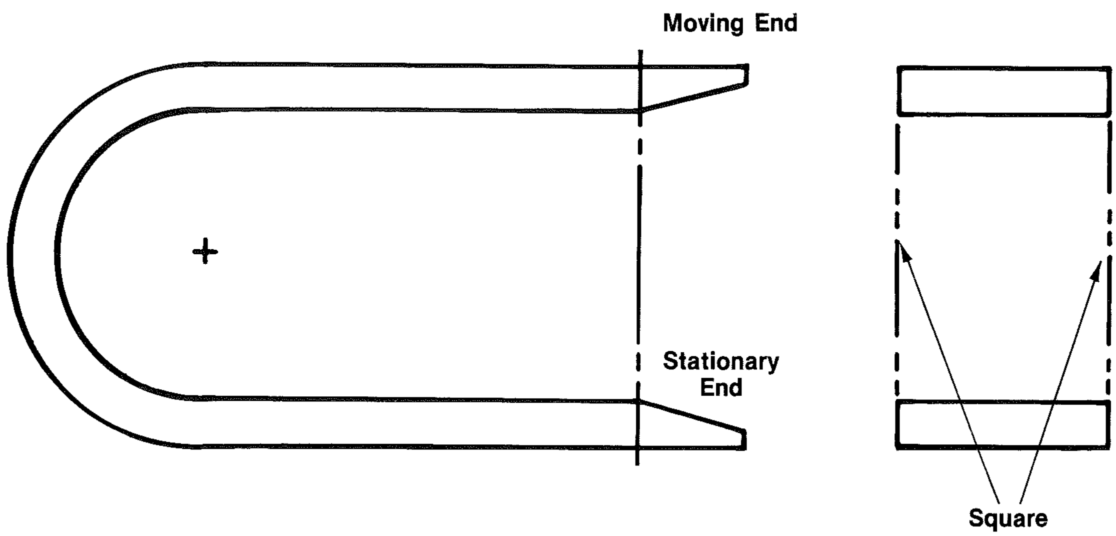
(A) Before fastening hose and cable in any manner, make sure they are lying loose and slack in the CATRAC. **Do Not Pull Tight!** After assuring cable freedom, fasten each item firmly with nylon ties or some other clamping device. Do not squash or collapse the hoses and cables. Just a firm grip on each item somewhere within 18″ of each end of the mounting feet will be sufficient.

Cable and Hose Carrier

Step IV

Install CATRAC in position and fasten the stationary end.

(A) Now you can fasten the stationary end of the CATRAC. It is not necessary to lock it down permanently until it has been aligned with the moving end and traverse to make sure it is on center. However, with it attached at the stationary end, you can most easily manage the moving end and not have to contend with the extra weight of the system.



Step V

Fold the CATRAC over and attach the moving end.

(A) Mount the moving end of the CATRAC to the equipment. Traverse the full stroke back and forth to make sure the CATRAC is in line, centered, and long enough to handle full travel of equipment. CATRAC is made to take a great deal of misalignment, but it is best to be in the ballpark for the longest life.

Make sure the moving end passes over the stationary end **in-line and square.**

Step VI

(A) When everything checks out, connect the hoses and terminate the electrical wires. Permanently fasten down the mounting feet and end brackets. The hoses and cables will now follow the natural radius of the CATRAC without any unusual wear since they only lay flat and slack as the CATRAC travels back and forth.

CATRAC

HEAVY DUTY CABLE AND HOSE CARRIERS

AMETEK®

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