

# **DIRECT SUPPORT MAINTENANCE**

## **MC-4 RAM AIR FREE-FALL PERSONNEL PARACHUTE SYSTEM**

### **CANOPY RIB**

#### **THIS TASK COVERS:**

- Replace

#### **INITIAL SETUP:**

##### **Tools**

Needle, Tacking (Item 29, WP 0063 00)  
 Sewing Machine, Light-Duty (Table 1, WP 0050 00)  
 Sewing Machine, Double Needle w/Puller ( $\frac{3}{8}$  gauge)  
 (Table 1, WP 0050 00)  
 Shears (Item 39, WP 0063 00)  
 Stitch Removal Tool (Item 40, WP 0063 00)  
 Tape Measure (Item 42, WP 0063 00)

##### **Equipment Condition**

Layout on packing table or other suitable area.

##### **Personnel Required**

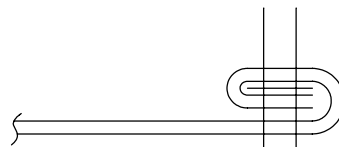
92R (10) Parachute Rigger

##### **Materials/Parts**

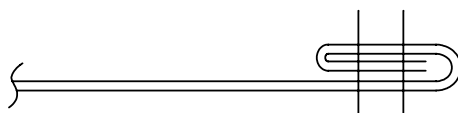
Rib, Loaded/Unloaded (WP 0068 00/WP 0069 00) As Applicable  
 Thread, Nylon, Size E (Item 43/44, WP 0076 00)

#### **REPLACE (WHOLE RIB)**

1. Cut stitching to open tail section approximately 12-inches on each side of the damaged rib.
2. Premark the top and bottom skin and rib where the reinforcement tapes are sewn on the rib and every 3-inches to be used as guide marks.
3. Layout the canopy and carefully cut the stitching and remove any items necessary to expose the damaged rib, such as suspension line attaching loops and reinforcing tapes.
4. Carefully cut and remove the double rows of stitching securing the rib to the top and bottom skin and remove the damaged rib.
5. Obtain a new rib from supply stock.
6. Using the damaged rib as a pattern, transfer the guide marks made in step 2., above, on to the replacement rib as required.
7. Starting at the tail end of the rib, fold and sew the bottom of the rib to the bottom skin with a double needle sewing machine, using size E nylon thread and 7 to 11 stitches per inch.



**RIB REPLACEMENT, BOTTOM SKIN**



**CROSS SEAM, BOTTOM SKIN**



**NOSE SEAM, BOTTOM SKIN**