# APPLICATION SPECIFICATION

## 1. SCOPE

This specification covers the requirements for application of AMP* Type XI contacts. These requirements are applicable to hand or automatic machine crimping tools. For specific wire and insulation ranges relative to the products covered in this specification see Figures 2 and 3.

## 2. NOMENCLATURE

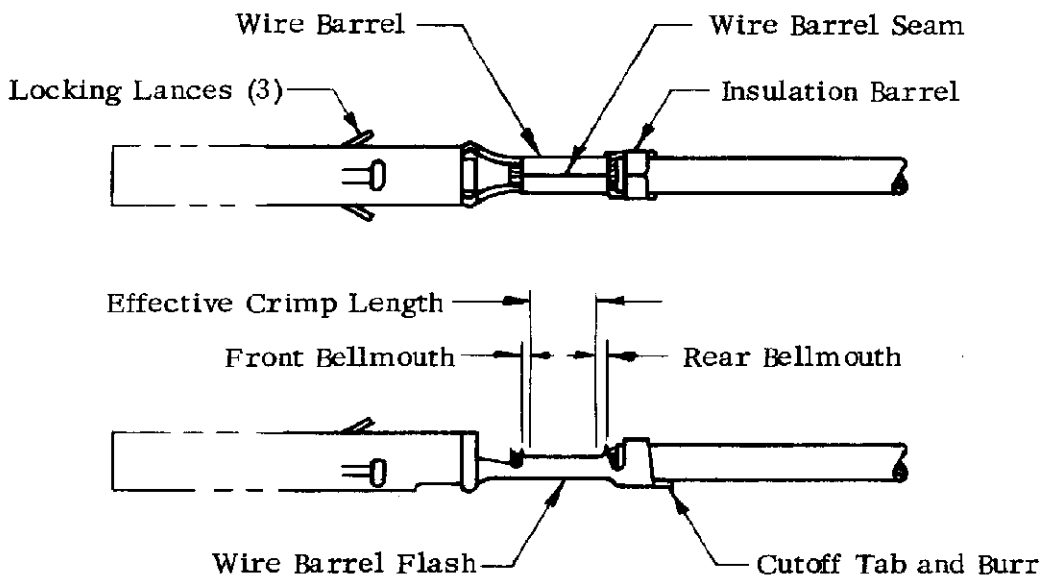


Figure 1

## 3. CRIMP AND DIMENSIONAL REQUIREMENTS

### 3.1. Wire Preparation

A. Strip Length

Insulation shall be stripped as indicated in Figures 2 and 3.

B. Workmanship

Reasonable care shall be taken not to nick, scrape or cut any strands during the stripping operation.

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| LTR | REVISION RECORD | APP | DATE |
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| A | Rev Fig 2 & 3 per ECN E-693 | CF | 10-18-76 |
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DIST 10

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SHEET 1 OF 4

NAME CONTACT, TYPE XI, APPLICATION OF

3.2. Carrier Cutoff Tab and Burr

A. Cutoff Tab

Cutoff tab shall not exceed .010.

B. Burr

Burr on cutoff shall not exceed .003.

3.3. Wire Barrel Crimp

A. Crimp Dimensions and Type

Crimp height, width and type shall be as shown in Figures 2 and 3.

B. Tensile Strength

Crimp tensile strength shall be as shown in Figures 2 and 3 when tested using a standard tensile machine at a rate of 1 in/min.

C. Effective Crimp Length

Effective crimp length shall be .085 min, and is defined as that portion of the barrel, excluding bellmouth, fully formed by the crimping tool.

D. Wire Barrel Flash

Wire barrel flash shall not exceed .003.

E. Wire Barrel Seam

(1) "F" Crimp

Wire barrel seam shall be completely closed and there shall be no evidence of loose wire strands or wire strands visible in the seam.

(2) "Crush" Crimp

The wire barrel crimp seam shall be completely closed and there shall be no evidence of trapped or partially trapped wire strands. After crimping, the tips of the legs of the wire barrel shall be visible. The tips shall appear as seam lines extending the length of the wire barrel on either side of the main crimp seam. The apparent seams are not necessarily located equidistant from the main crimp seam.

F. Bellmouth

(1) Rear bellmouth length shall be .005 min.

(2) Front bellmouth length shall be .010 max.

G. Conductor Location

(1) End of the wire shall be flush with the front end of the wire barrel or extend .040 max after crimping.

(2) Both insulation and conductor shall be visible between the insulation barrel and wire barrel. Care shall be taken not to allow insulation to be crimped in the wire barrel.

3.4. Insulation Barrel Crimp

A. Crimp Dimensions and Type

Crimp height, width and type shall be as shown in Figures 2 and 3.

B. Workmanship

Reasonable care shall be taken not to cut or break the insulation during the crimping operation.

3.5. Locking Lance

Locking lances shall not be deformed.

3.6. Alignment

A. Straightness

Crimped contacts shall pass through a .625 in long straight metal tube with an inside diameter of .079. The mating end of the crimped contact shall be inserted into the tube and there shall be no interference between the inside diameter of the tube and contact insulation support or cutoff tab.

B. Twist or Roll

There shall be no twist or roll in crimped portion that will impair usage of the contact.

| Wires | | Insulation Diameter, max | Strip Length | Wire Barrel Crimp | | | | Insulation Barrel Crimp | | |
|---|---|---|---|---|---|---|---|---|---|---|
| No | Size | | | Width | Height ±.002 | Type Crimper | Tensile Strength, lb | Width | Height | Type Crimper |
| 1 | 20 | .062 | .141 / .109 | .055 | .0345 | F | 20.0 | .070 | Variable | O |
| 1 | 22 | | | | .0285 | | 12.0 | | | |
| 1 | 24 | | | | .0285 | | 8.0 | | | |
| 1 | 26 | .048 | | | .0270 | Crush | 5.0 | | | |
| 1 | 28 | | | | .0270 | | 3.0 | | | |
| 1 | 30 | | | | .0270 | | 1.7 | | | |

Figure 2

Automatic Machine Wire Crimp Dimensions

| Wires | | Insulation Diameter, max | Strip Length | Wire Barrel Crimp | | | | Insulation Barrel Crimp | | | Hand Tool Part No |
|---|---|---|---|---|---|---|---|---|---|---|---|
| No | Size | | | Width | Height ±.002 | Type Crimper | Tensile Strength, lb | Width | Height | Type Crimper | |
| 1 | 20 | .062 | .172 / .141 | .055 | .0345 | F | 20.0 | .070 | (a) | O | 90260-1 |
| 1 | 22 | | | | .0285 | | 12.0 | | | | |
| 1 | 24 | | | | .0285 | | 8.0 | | | | |
| 1 | 26 | .048 | | | .0270 | Crush | 5.0 | | | | 90223-5 |
| 1 | 28 | | | | .0270 | | 3.0 | | | | |
| 1 | 30 | | | | .0270 | | 1.7 | | | | |

(a) Three selections available: #1, .040; #2, .055; #3, .070

Figure 3

Hand Tool Wire Crimp Dimensions