

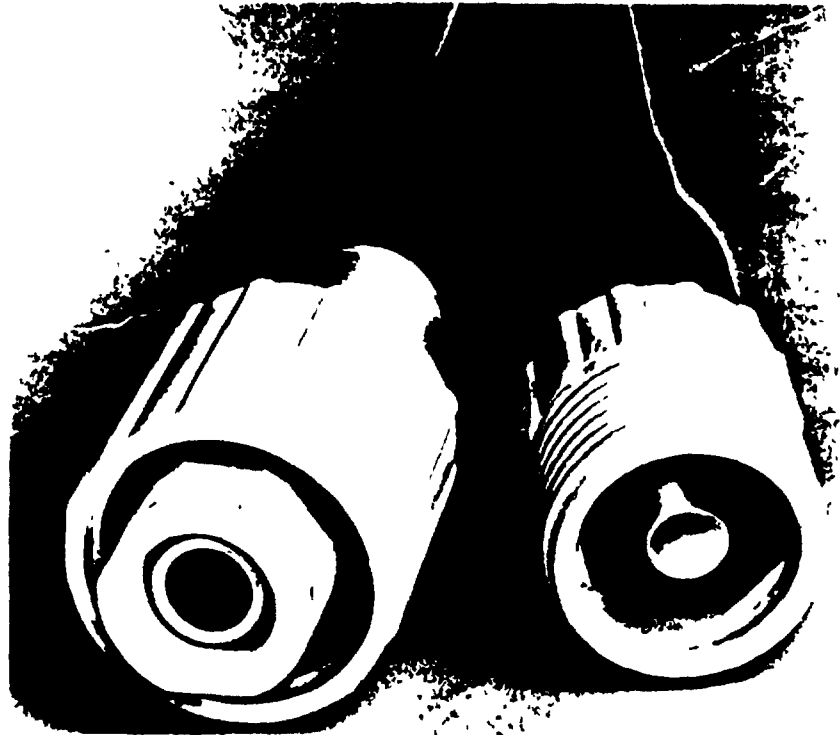
MIL-C-24368/4A(NAVY)
25 March 1987
SUPERSEDING
MIL-C-24368/4(NAVY)
14 September 1983

MILITARY SPECIFICATION SHEET

CONNECTOR ASSEMBLIES; PLUGS AND RECEPTACLES, ELECTRIC,
POWER TRANSFER, SHORE TO SHIP AND SHIP TO SHIP, 500 VOLTS,
500 AMPERES, 60 HERTZ, SYMBOL NUMBERS 1162.1, 1162.2 AND 1162.3

This specification is approved for use within the Naval Sea Systems Command, Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense.

- (A) The requirements for acquiring the plugs and receptacles described herein shall consist of this specification and the latest issue of MIL-C-24368(NAVY).



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NOTES:

1. Dimensions are in inches.
2. For tolerances other than specified, see dimensions and tolerances of MIL-C-24368.

FIGURE 1. View of in-line connectors, typical.

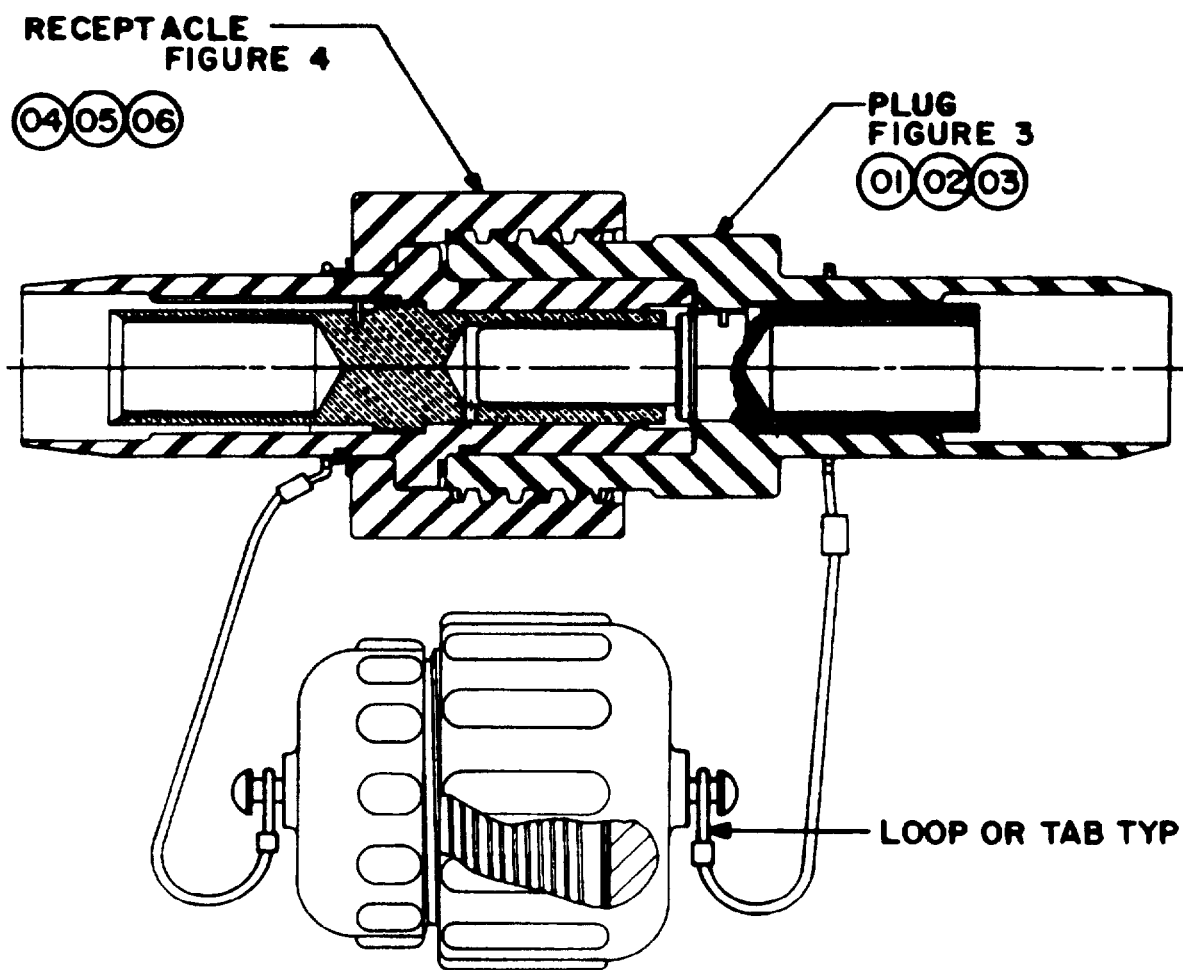
(A) denotes changes.

AMSC N/A

FSC 5935

DISTRIBUTION STATEMENT A Approved for public release; distribution unlimited

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FIGURE 2. In-line plug and receptacle, typical.

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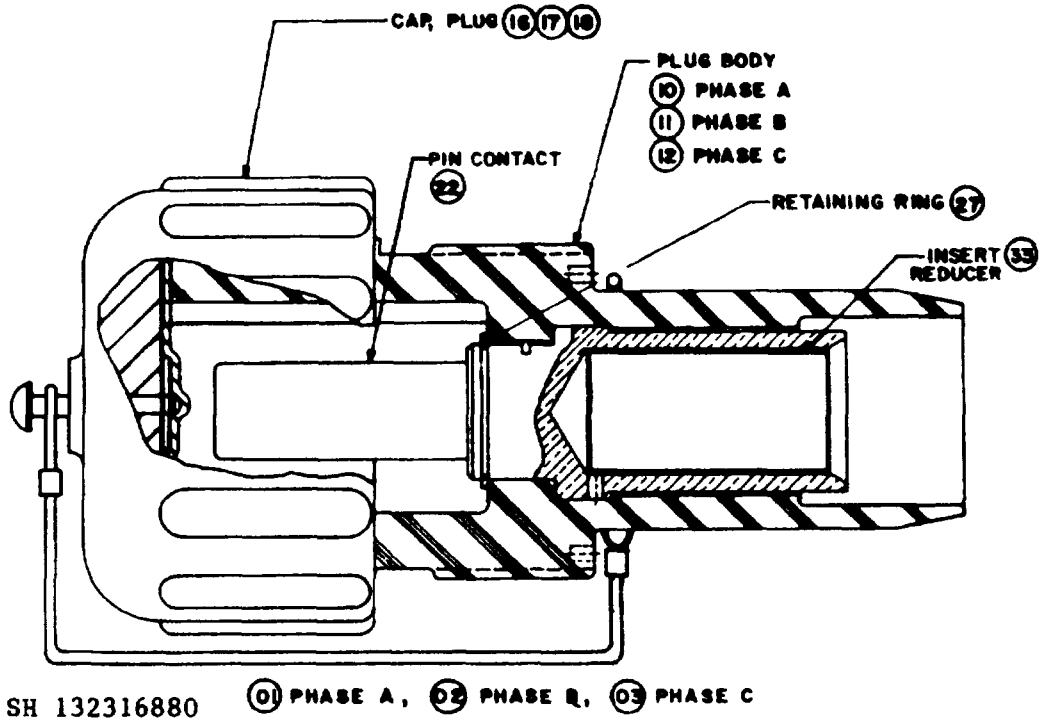


FIGURE 3. Plug assembly, typical.

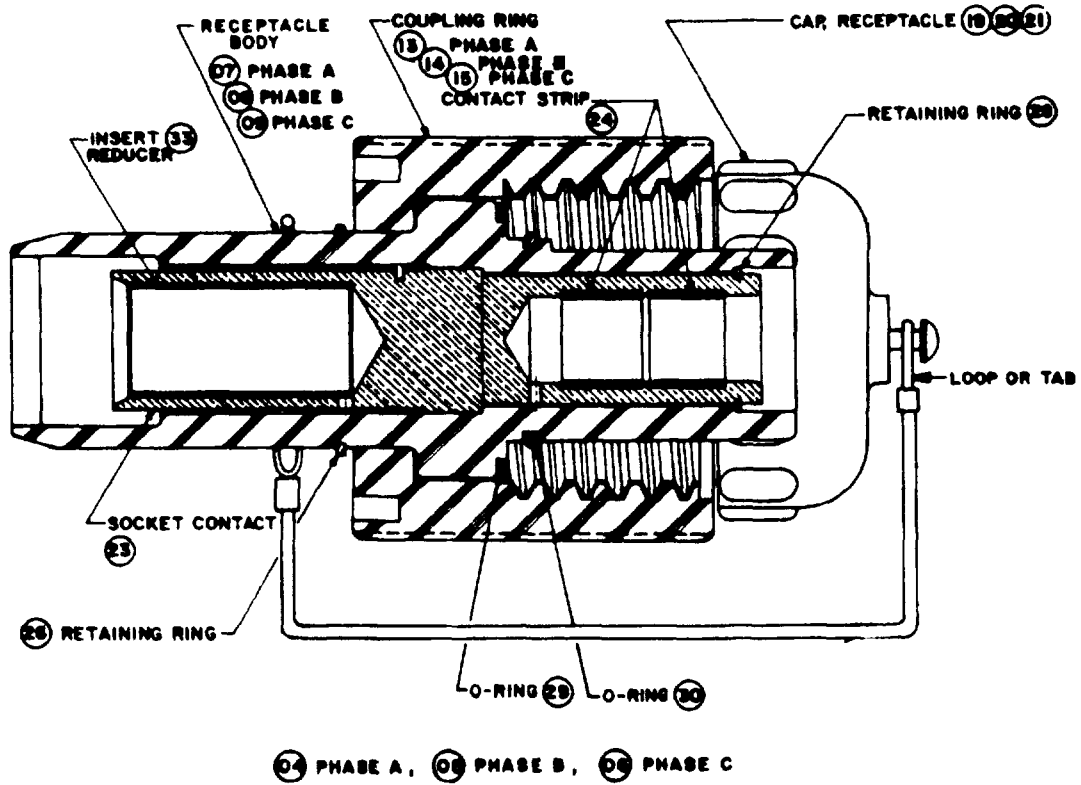
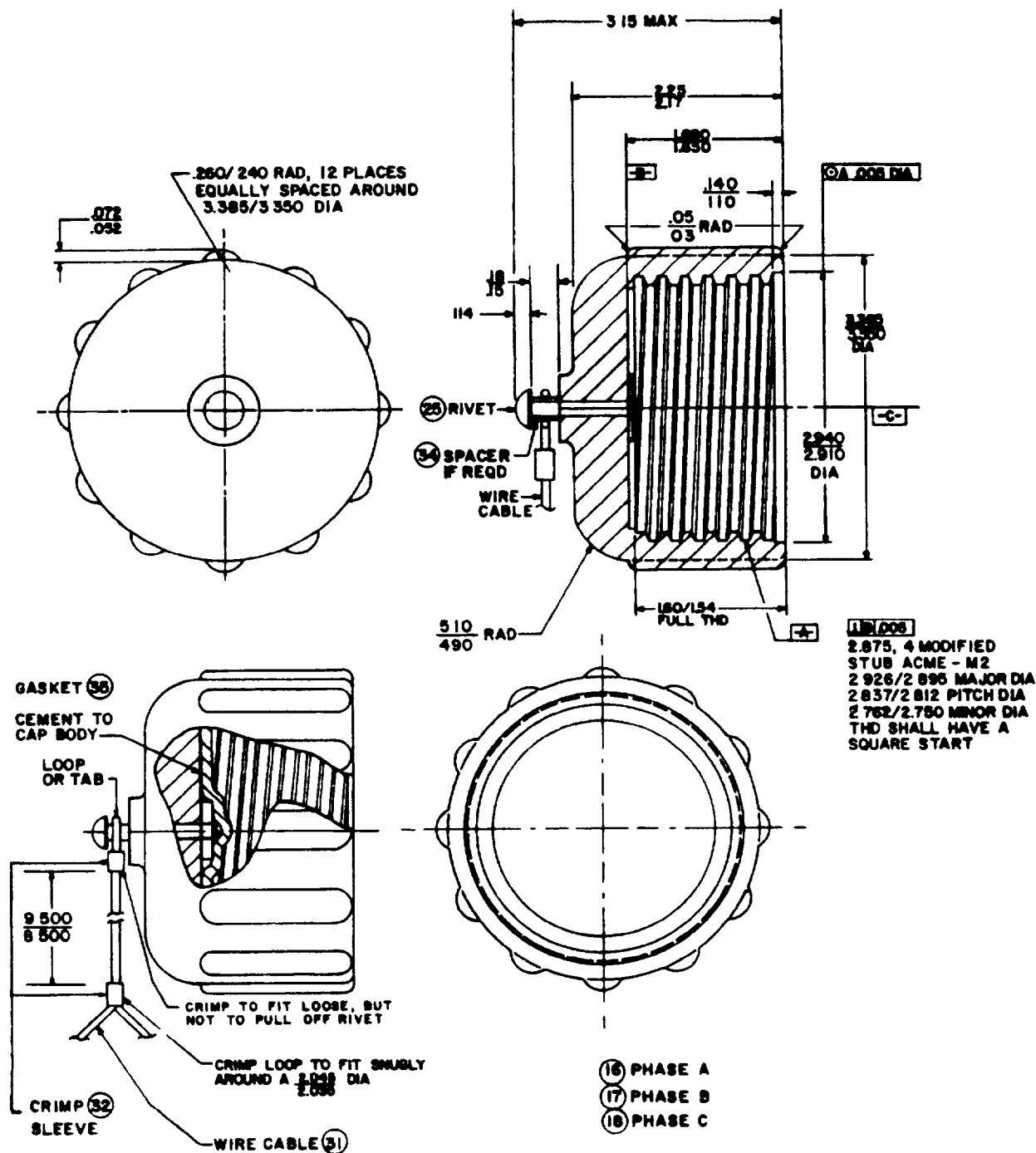


FIGURE 4. Receptacle assembly, typical.

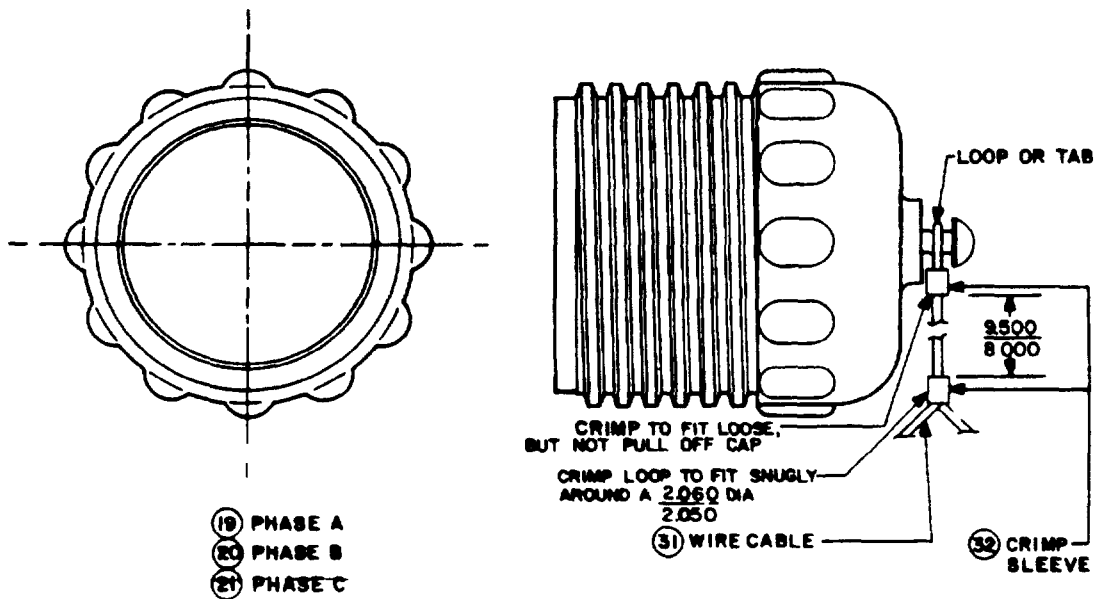
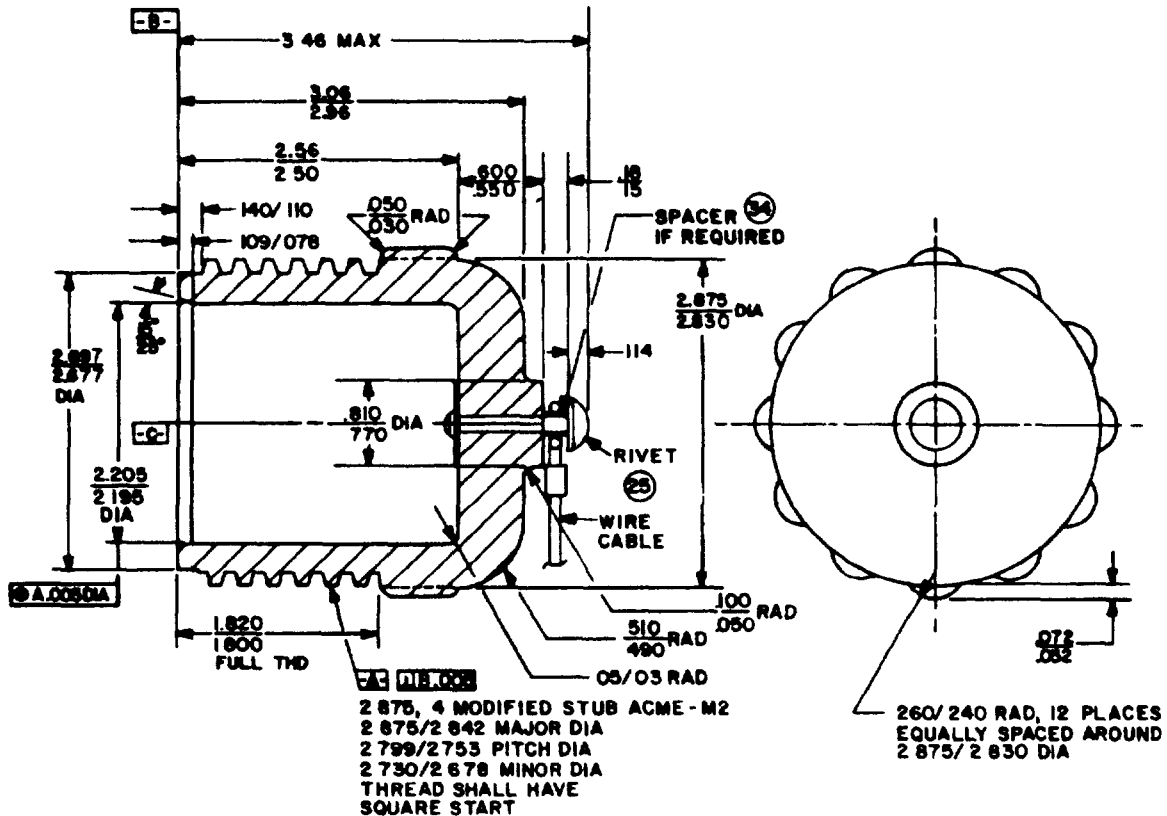
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FIGURE 5. Protective cap, plug.

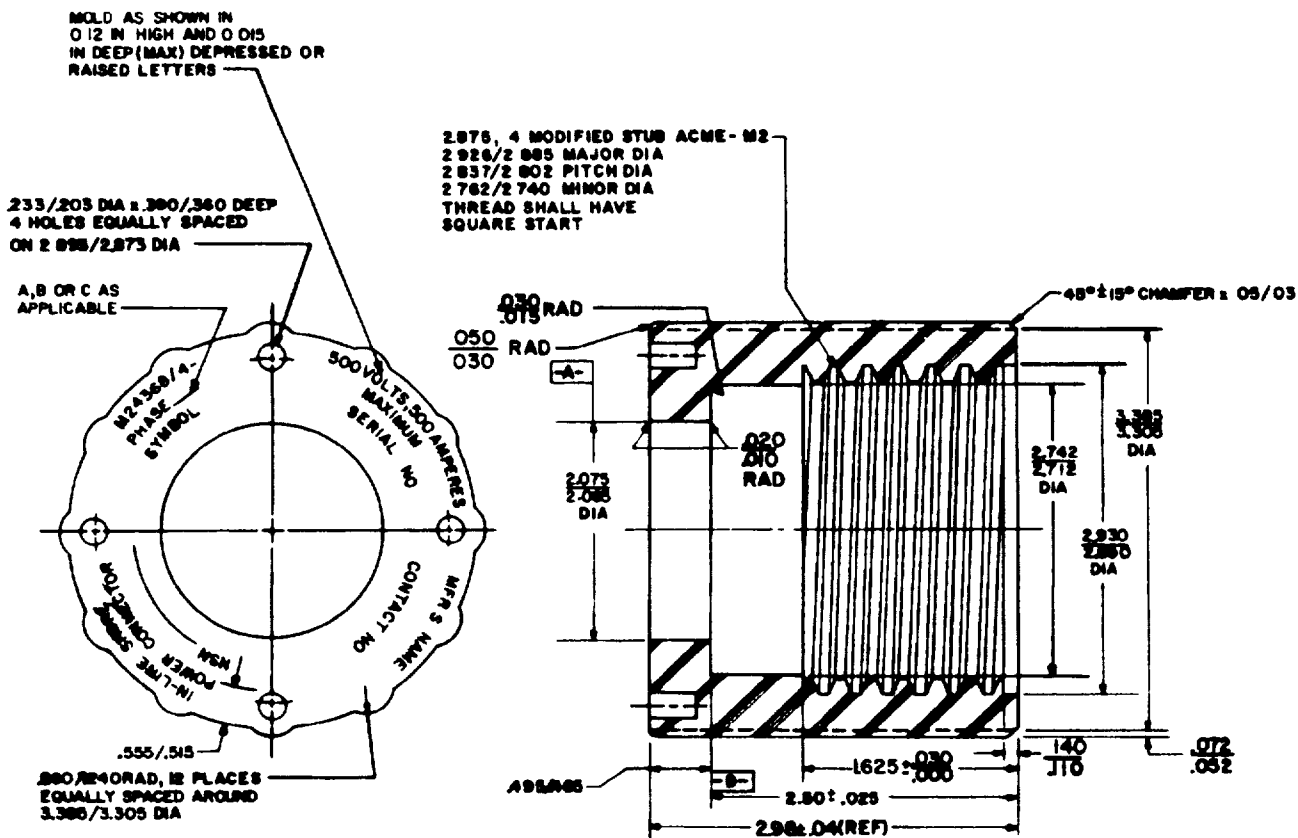
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FIGURE 6. Protective cap, receptacle.

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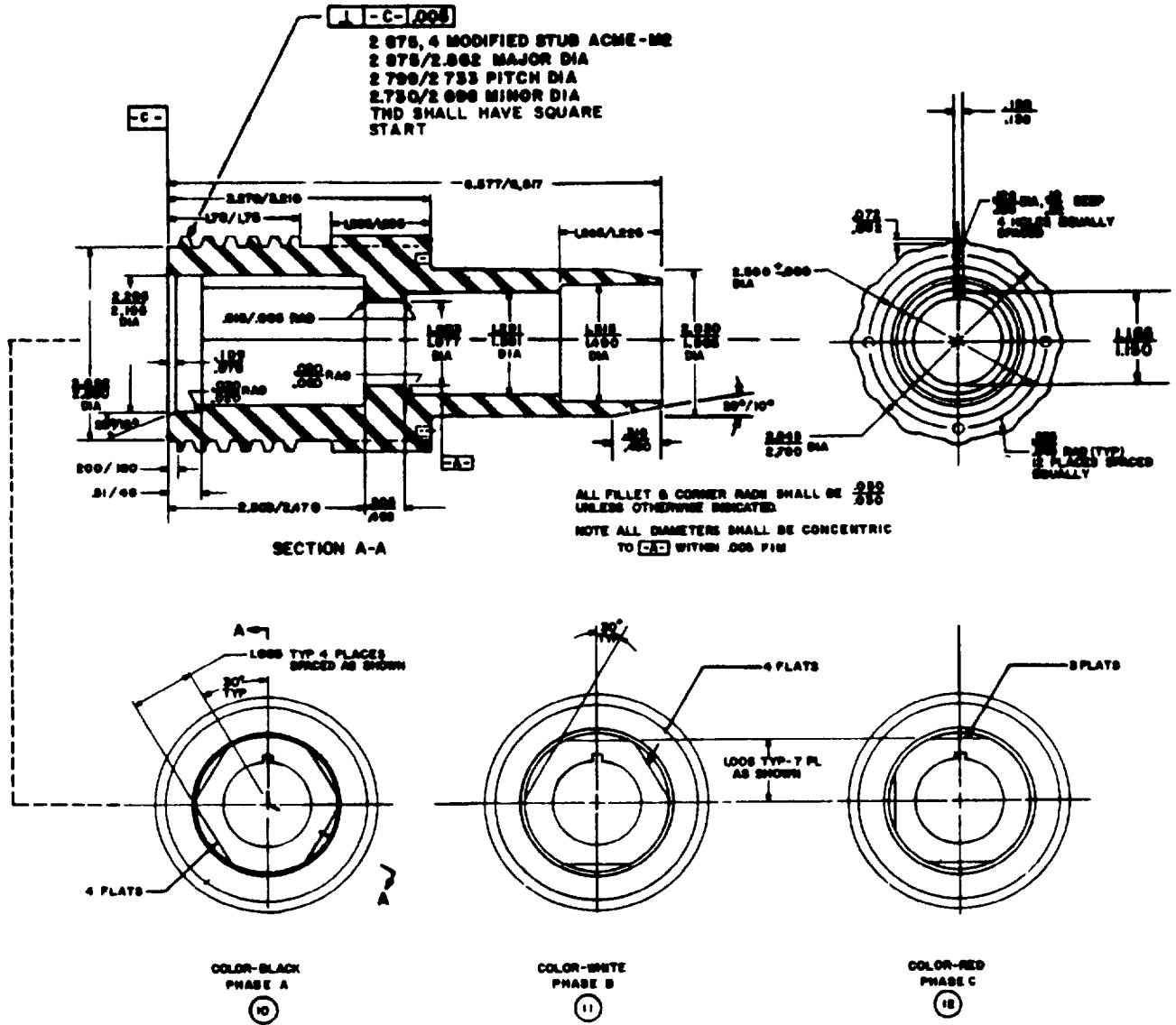


- ⑬ PHASE A (BLACK)
- ⑭ PHASE B (WHITE)
- ⑮ PHASE C (RED)

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FIGURE 7. Coupling ring.

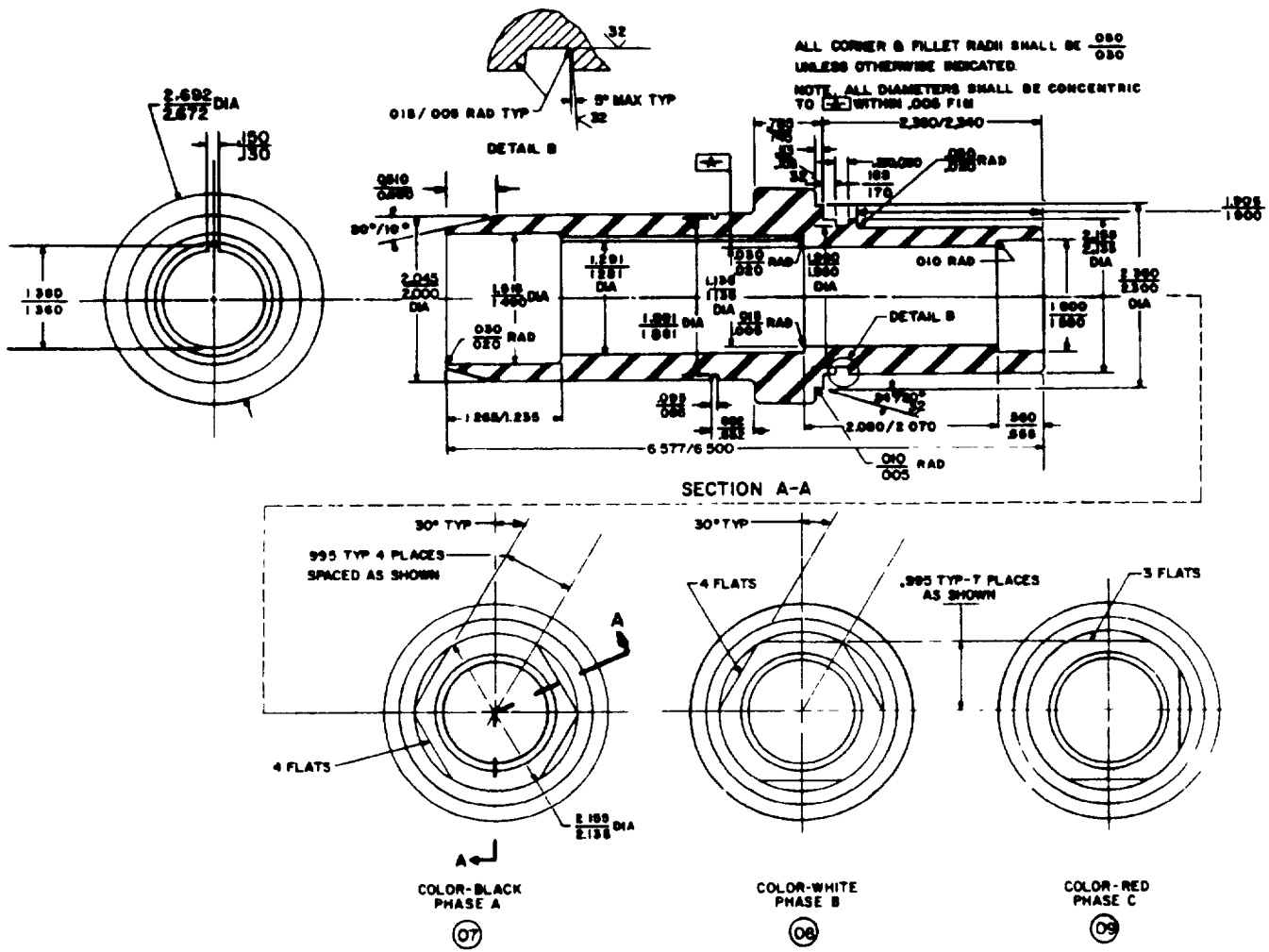
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FIGURE 8. Body, plug.

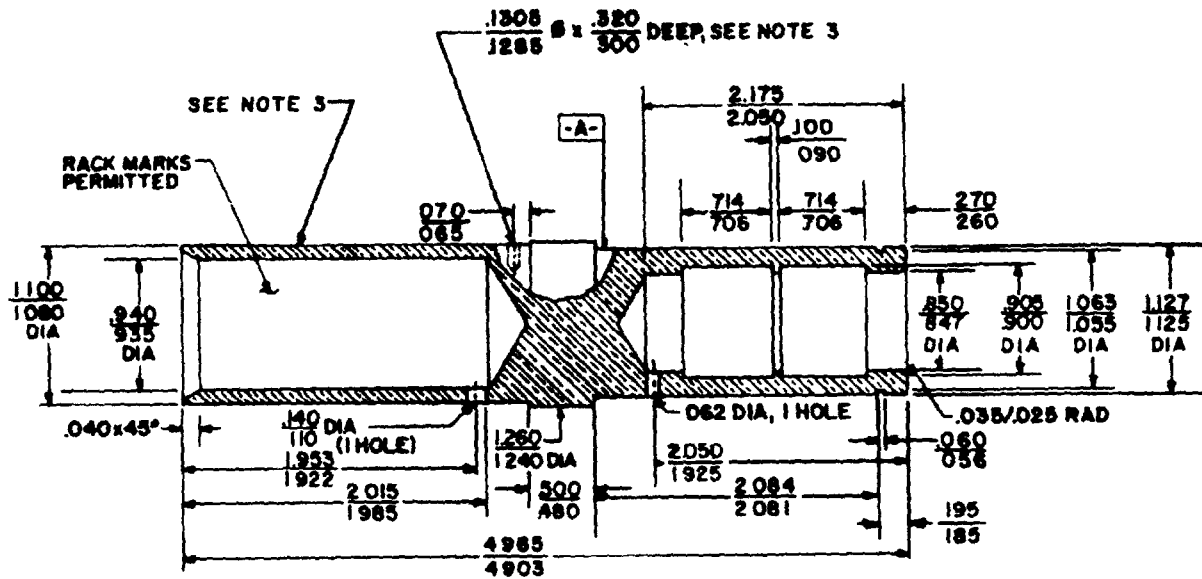
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FIGURE 9. Body, receptacle.

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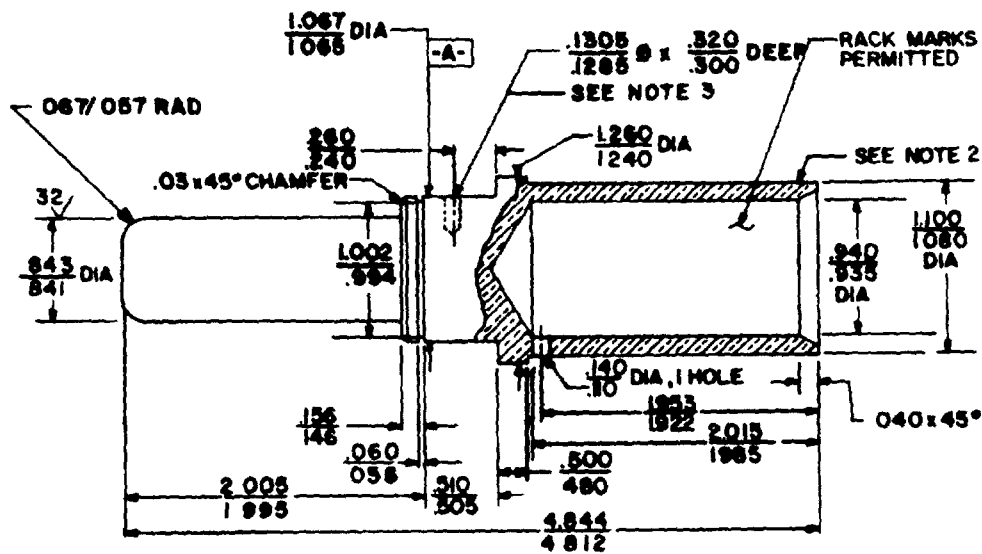


NOTES:

1. Dimensions shall be concentric to -A-.
2. Mark on the outside "crimp two places using Thomas and Betts crimping die 94H or equal".
3. Item 36 shall protrude 0.10/0.15 inch.

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FIGURE 10. Contact, socket. (23)



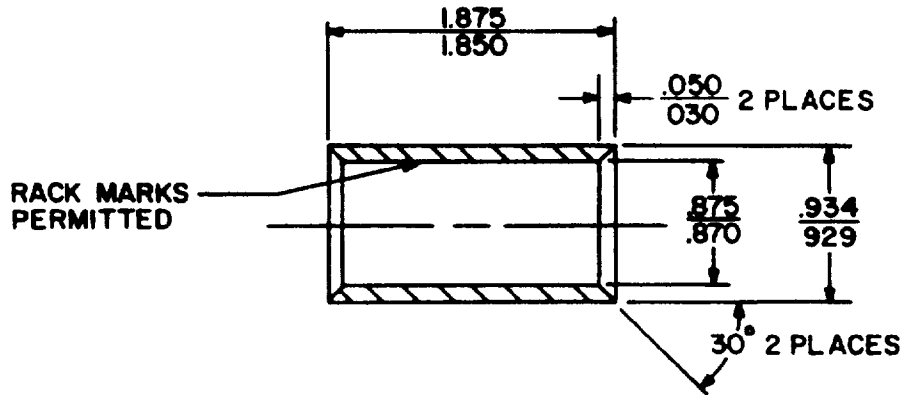
NOTES:

1. Dimensions shall be concentric to -A-.
2. Mark on the outside "crimp two places using Thomas and Betts crimping die 94H or equal".
3. Item 36 shall protrude 0.10/0.15 inch.

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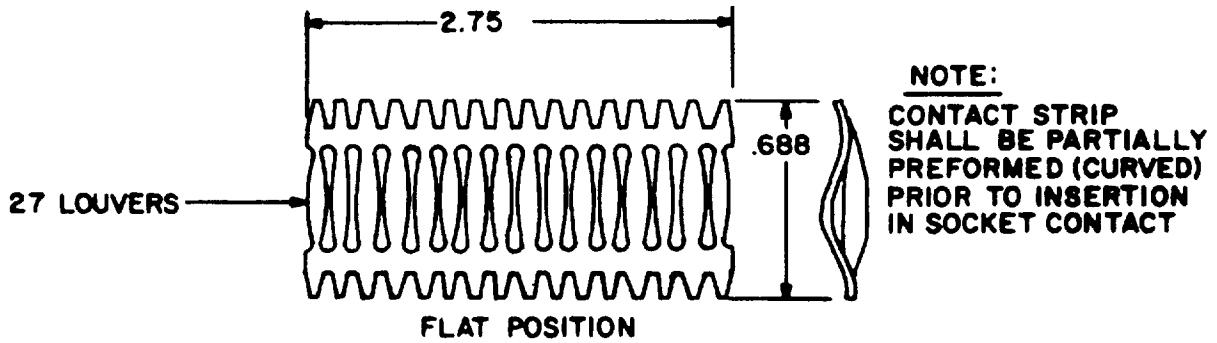
FIGURE 11. Contact pin. (22)

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FIGURE 12. Insert, reducer, 500 MCM to 400 MCM. (33)



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FIGURE 13. Contact strip. (24)

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REQUIREMENTS:

A CONFIGURATION:

Electrical rating: $\frac{1}{2}$ 500 volts, 500 amperes, 60 hertz.

Dimensions and configuration: See figures 1 through 13.

Reducer insert, item 33 (figure 12): Contacts are designed to accept 500-MCM conductors. If 400-MCM conductors are used, the reducer insert shall be inserted in the contact prior to crimping. Unless otherwise specified in the contract, reducer inserts shall not be furnished as part of the connector assemblies.

Standard parts: The standard parts shown in table II shall be used in the construction of the connector assemblies specified herein.

$\frac{1}{2}$ When 400-MCM cable is used, the connector rating is reduced to 400 amperes.

ORDERING DATA:

Specify when reducer inserts are to be furnished.

QUALITY ASSURANCE:

Plugs and receptacles shall have installed 5-foot sections of THOF-500 cable conforming to MIL-C-915/6 in accordance with Drawing 803-5001027 for testing purposes.

HI-shock: Not applicable.

Mechanical vibration: Not applicable.

GENERAL INFORMATION:

Assignment of military part numbers and general information is as follows and as shown in table I.

Typical installation of shore power connectors is shown in Drawing 803-5001027. Installation of plugs and receptacles shall be in accordance with Drawing 803-5001027.

TABLE I. Assignment of military part numbers and general information.

Military part no.	Item name	Symbol number	Remarks
M24368/4-001	Connector assemblies, plug and receptacle phases A, B and C	----	Figure 2
M24368/4-002	Connector assembly, plug and receptacle phase A	1162.1	Figure 2
M24368/4-003	Connector assembly, plug and receptacle phase B	1162.2	Figure 2
M24368/4-004	Connector assembly, plug and receptacle phase C	1162.3	Figure 2

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TABLE II. Standard parts.

Item no. ^{1/}	Description	Qty	Material/spec	Remarks
01	Plug assembly, phase A ^{2/}	-	-	Figure 3
02	Plug assembly, phase B ^{2/}	-	-	Figure 3
03	Plug assembly, phase C ^{2/}	-	-	Figure 3
04	Rcpt assembly, phase A ^{2/}	-	-	Figure 4
05	Rcpt assembly, phase B ^{2/}	-	-	Figure 4
06	Rcpt assembly, phase C ^{2/}	-	-	Figure 4
07	Body, rcpt, phase A	1	<u>3/</u>	Figure 9
08	Body, rcpt, phase B	1	<u>3/</u>	Figure 9
09	Body, rcpt, phase C	1	<u>3/</u>	Figure 9
10	Body, plug, phase A	1	<u>3/</u>	Figure 8
11	Body, plug, phase B	1	<u>3/</u>	Figure 8
12	Body, plug, phase C	1	<u>3/</u>	Figure 8
13	Ring, coupling, phase A	1	<u>3/</u>	Figure 7
14	Ring, coupling, phase B	1	<u>3/</u>	Figure 7
15	Ring, coupling, phase C	1	<u>3/</u>	Figure 7
16	Protective cap, plug, phase A	1	<u>3/</u>	Figure 5
17	Protective cap, plug, phase B	1	<u>3/</u>	Figure 5
18	Protective cap, plug, phase C	1	<u>3/</u>	Figure 5
19	Protective cap, rcpt, phase A	2	<u>3/</u>	Figure 6
20	Protective cap, rcpt, phase B	2	<u>3/</u>	Figure 6
21	Protective cap, rcpt, phase C	2	<u>3/</u>	Figure 6
22	Contact, pin	1	<u>5/</u> Copper, ASTM B 301	Figure 11
23	Contact, socket	1	<u>5/</u> Copper, ASTM B 301	Figure 10

See footnotes at end of table.

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TABLE II. Standard parts. - Continued

Item no. ^{1/}	Description	Qty	Material/spec	Remarks
24	Contact, strip	2	<u>4/</u>	Figure 13
25	Rivet (to suit)	1	CRES, coml	Figures 5 & 6
26	Ring, retaining	1	MS16624-4200	
27	Ring, retaining	1	MS16624-4106	
28	Ring, retaining	1	MS16624-4112	
29	O-ring	1	MS28775-228	
30	O-ring	1	MS28775-225	
31	Cable, wire 1/8 diameter, minimum (length to suit)	1	CRES, coml	Figures 5 & 6
32	Sleeve, crimp	2	CRES, coml	Figures 5 & 6
33	Insert, reducer	1	<u>5/</u> Copper, ASTM B 301	
34	Spacer or tab (to suit)	1	CRES, coml	Figures 5 & 6
35	Gasket 2-11/16 diameter x 1/8 thick	1	Neoprene rubber, coml	Figure 5
36	Pin, guide	1	MS16562-219	

1/ Item numbers are the same as numbers shown in circles on figures.

2/ Plug and receptacle assemblies shall be furnished with all parts installed except the retaining rings for the pin and socket contacts shall be furnished but not installed.

3/ This part shall be molded using polybutylene terephthalate glass reinforced thermoplastic (polyester plastic and elastomer alloy) fiberite number RTP 2005GFIFR. Color of molded parts shall be: Phase A - black; phase B - white; phase C - red. Color shall be uniform throughout the molded part.

4/ Contact strip shall be equal to Multilam Corporation (745 Distel Drive, Los Altos, CA 94022) band type LA1a/0.15 Beryllium copper 0.006 inch thick, 2.75 inches long, 10 louvers per inch, silver plated.

5/ Alloy no. C14500 or C18700 shall be used.

Review activity:
Navy - YD

Preparing activity:
Navy - SH
(Project 5935-N307)

User activity:
Navy - EC