


D E S C R I P T I O NPRODUCT COVERED:

Pressure Wire Connectors, Type Copalum, Parallel and Butt Splice Pressure Cable Connector and Ring Tongue Pressure Terminal Connector for specific Cat. No., see under General Character and Use.

GENERAL CHARACTER AND USE:

The wire connectors covered in this report are for use only with the specific copper and aluminum conductor sizes and types indicated herein. Ring and Butt Connectors are suitable for single conductor per wireway only. Parallel Splice Connectors are suitable for multiple conductors in barrel wireway. All connectors require that the inserts not be removed. The connectors comply with UL 486B requirements for use with cable rated 90°C max.

They are intended to be installed with this manufacturer's manual crimping tool identified as "bar crimp" or with symbol "  " and with wire range.

\* See tabulation on Pages 1A, 1B, 1C, 1D and 1E.

CONSTRUCTIONS DETAILS:MARKING ON PRODUCT

General - All of the following markings must appear on the individual connectors except that Items 5 and 6 may appear on the unit container or on an information sheet packaged in the unit container. Wherever located, Items 5 and 6 of MARKING ON PRODUCT must appear in the same location as Items 3 and 4 of MARKING ON UNIT CONTAINER in their entirety.

1. Lister's name, trade name or equivalent identification.
2. Catalog number or type designation. (See Item 4).
3. Wire size or range. Followed by:  
"AL9" or "AL90" on connectors for use with aluminum conductors.  
"AL9" or "90" "CU" on connectors for use with aluminum or copper conductors or both, as indicated in the report. (See Item 4).

R.R.  
J.T.

4. In lieu of Items 2 and 3, on connector for No. 6 AWG or smaller conductors, may be marked with a symbol, such as individual catalog number, a type designation, a size designation (such as 18) or equivalent symbol.
5. "Solid" or "Stranded" or "SOL" or "STR" if specified in the individual report. This marking must appear on the connector where space permits.
6. Specific assembly tool and instructions on use.

#### MARKING ON CONTAINER

General - The following markings must appear on the unit carton except that Item 3 may appear instead on an information sheet packaged in each unit container. Wherever located, Item 3 of MARKING ON UNIT CONTAINER must appear in the same location as Items 5 and 6 of MARKING ON PRODUCT in their entirety.

1. Listee's name, trade name or equivalent identification.
2. Catalog number of type designation.
3. Wire size of range or combinations.
4. If a unit container has 10 or less connectors, it may be marked with a reference to an identifying number on an information sheet for correlating purposes.

Note, for this case only, the information sheet - one for each unit container - shall be packed in the packaging container.

N.M.  
T.D'A.

Connector Cat. Type No.	Wire to be Used ( In One End End and In Other End)	Ill. No.	Hand Tool#	Pneu- matic Tool	Pneu- matic Tool	Hydraulic Power Unit Nos.-Head No.-Die Insert No.
52004	14-10 CU SOL or STR and 12-10 AL SOL only	1	68402	69010 - 68030 68068 - (68104 (68105		
*52004	1 No. 12 AL SOL and 1 No. 12 AL SOL	1	68402			
*52004	1 No. 12 AL SOL and 1 No. 10 AL SOL	1	68402			
*52004	1 No. 10 AL SOL and 1 No. 10 AL SOL	1	68402			
51826	12-10 CU SOL or STR 8 CU STR and 8 AL STR only	3		69015 - 68032 69010 - 68054 68068 - 68105	69120 - 69099	68403
51941	8-6 CU Ref. NEC CODE STR and 6 AL, STR only	5		69015 - 69999 68068 - 68106	69120 - 69099	68044
51942	6-4 CU STR and 4 AL STR only	7		69015 - 68038	69120 - 69099	68045
52007	4-2 CU STR and 2 AL STR only	9			69120 - 69099	68046
52010	2-1/0 CU STR and 11 1/0 AL STR only	11			69120 - 69099	68047
52013	1/0-2/0 CU STR and 2/0 AL STR only	13			69120 - 69099	68048

W.M.  
N.M.

Connector Cat. Type No.	Wire to be Used ( In One End End and In Other End)	Ill. No.	Hand Tool#	Pneumatic Tool		Hydraulic Power Unit Nos.-Head No.-Die Insert No.
				Pneumatic Tool	Pneumatic Tool	
52016	2/0-3/0 CU STR and 3/0 AL STR only	15				69120 - 69099 - 68049
52019	3/0-4/0 CU STR and 4/0 AL STR only	17				69120 - 69082 - 68050 69120 - 68073-1 - 68160-1
52560	4/0-250 CU STR and 250 MCM AL STR only	19				69120 - 69082 - 68034 69120 - 68073-1 - 68161-1
52561	250-300 MCM CU STR and 300 MCM AL STR only	21				69120 - 69082 - 69035 69120 - 68073-1 - 68162-1
52562	300-400 MCM CU STR and 400 MCM AL STR only	23				69120 - 69082 - 68036 69120 - 68073-1 - 68163-1
52563	400-500 MCM CU STR and 500 MCM AL STR	25				69120 - 68082 - 68037 69120 - 68073-1 - 68164-1

Butt Splice

W.M.  
N.M.

Connector Type	Cat. No.	Wire to be Used Single Conductor In	Ill. No.	Hand Tool#	Heads Nos. For		Hydraulic Power Unit Nos.-Head No.-Die Insert No.
					Pneu- matic tool	Pneu- matic Tool	
Ring Tongue							
	51979 -1,-2, -3	14-10 CU SOL or STR and 12-10 AL SOL only	2	68042	69010 - 68030 68068 - 68104 68068 - 68105		69120 - 68043
	52590 -1,-2,	14-10 CU SOL or STR and 12-10 AL SOL only	4	68042	69010 - 68030 68068 - 68104 68068 - 68105		69120 - 68043
	50720 -2,-3,	12-10 CU SOL or STR 8 CU STR or 8 AL STR only	6		69015 - 68032 69010 - 68054 68068 - 68105		69120 - 68044
	50719 -2,-3, -4	8-6 CU STR or 6 AL STR only	8		69015 - 69999 68068 - 68106		69120 - 68044
	50717 -3	6-4 CU STR or 4 AL STR only	10		69015 - 68038		69120 - 68045
	51982 -3	4-2 CU STR or 2 AL STR only	12		69120 - 68046		69120 - 68046
	51986 -1,-2, -3	2-1/0 CU STR or 1/0 AL STR only	14		69120 - 68048		69120 - 68048
	51989 -1,-2, -3	1/0-2/0 CU STR or 2/0 AL STR only	16		69120 - 68049		69120 - 68049
	51992 -1,-2, -3	2/0-3/0 CU STR or 3/0 AL STR only	18		69120 - 68049		69120 - 68049
	51995-1 -1,-2	3/0-4/0 CU STR or 4/0 AL STR	20		69120 - 68050		69120 - 68050
	51995-2				60120 - 68073-1 -		60120 - 68160-1

APP'S REPORT

Wire to be Used		Hydraulic Power
Conductor In	Single Ill. No.	Unit Nos. -Head No. -Die Insert
4/0-250 MCM CU STR OR 250 MCM AL STR only	22	69120 - 69082 - 68034
250-300 MCM CU STR OR 300 MCM AL STR only	24	69120 - 68073-1-68161-1
300-400 MCM CU STR OR 400 MCM AL STR only	26	69120 - 69082 - 68036
400-500 MCM CU STR OR 500 MCM AL STR only	27	69120 - 68073-1-68163-1

Connet or Type	Cat. No.	Wire Combination	Ill. No. 29
Ring Tongue	52559	4 No. 10 sol AL with	69120 - 68068 - 68106
	-1,-2	1 No. 12 sol or STR Cu.	
	-3,-4,-5	1 No. 10 sol AL with	69120 - 68068 - 68106
	52559-5	1 No. 10 sol AL	
	52558	4 No. 12 sol AL with	69120 - 68068 - 68106
	-1,-2	1 No. 12 sol. Cu	
	-3,-4,-5	R No. 14 sol Cu./with	69120 - 68068 - 68106
	52558-5	3 No. 12 sol AL	
	52568	3 No. 10 AL sol	69120 - 68068 - 68106
	-1,-2	4 No. 10 AL sol	
	-3,-4,-5	3 No. 12 AL sol and	69120 - 68068 - 68106
	52568-5	1 No. 12 Cu sol or STR	
	52569	5 No. 12 AL sol	69120 - 68068 - 68106
	-1,-2		
	-3,-4,-5		
	52569-5		

\* Alternate Cat. No. - Cat. No. 52746 may be also be identified as Cat. No. 55696-1.

<u>Size Parallel</u>	<u>Cat. No.</u>	<u>Wire Combination</u>	<u>Ill. No. 29</u>	<u>Hydraulic Power Unit No.</u>	<u>Head No.</u>	<u>Die Insert No.</u>
8	Splice	52745	2 No. 12 sol Al with 1 No. 14 sol or str. Cu	69120	68068	68105
8	Splice	52745	1 No. 12 sol Al with 1 No. 12 sol Al	69120	68068	68105
8	Splice	52745	1 No. 12 sol Cu with 1 No. 12 sol Al	69120	68068	68105
8	Splice	52745	2 No. 12 sol Al with 1 No. 12 sol Cu	69120	68068	68105
8	Splice	52745	3 No. 12 Al sol	69120	68068	68105
8	Splice	52745	1 No. 10 Al sol with 1 No. 12 Cu sol	69120	68068	68105

\* Cat. No. Variations

Alternate Cat. No. - Cat. No. 52745 may also be identified as Cat. No. 55695-1.

\* The following Cat. Nos. are similar to the basic Cat. Nos. with the exceptions noted below:

<u>Cat. No.</u>	<u>Ill. No.</u>	<u>Similar To</u>	<u>Exceptions</u>
* 184076-1	55	50720	Has a 10 mm dia hole in ring tongue.
* 184079-1	56	50719	Has a 10 mm dia hole in ring tongue.
* 184082-1	57	50717	Has a 10 mm dia hole in ring tongue.
* 184084-1	58	51982	Has a 10 mm dia hole in ring tongue.
* 184087-1	59	51986	Has a 10 mm dia hole in ring tongue.
* 184090-1	60	51989	Has a 10 mm dia hole in ring tongue.
* 184092-1	61	51992	Has a 10 mm dia hole in ring tongue.
* 184094-1	62	51995	Has a 10 mm dia hole in ring tongue.

R.R.  
J.T.

E 13288

VOL. I  
AND SEC. 19  
REPORT

FIG. 1

BUTT

INSERT

TOOL

RING TONGUE

M75-12,986



\* "COPALUM" PRESSURE WIRE CONNECTORS RING  
TONGUE PRESSURE TERMINAL CONNECTORS  
BUTT SPLICE PRESSURE CABLE CONNECTORS -  
SEE LIST OF ILLS. ON PAGES 1A-1D OF REPORT FIG. 1 (M75-12986)

General - These connectors are tool applied, crimp type ring tongue pressure terminal or butt splice pressure cable connectors. They are fabricated as follows:

Body - Formed from rolled and welded copper sheet stock. Inside of connector barrel has pattern of circular indents covering entire wireway surface. Tin plated after forming. Butt splice has three punched sections located in center of connector and equally spaced around the circumference of the connector which protrude into the connector barrel to act as an end stop and as a separator for the conductors; ring tongue terminal has terminal end formed flat from reduced width copper sheet, hole punched in terminal end. See Illustration Pages 1 and 2 for dimensions.

Insert - Formed from perforated copper sheet stock. Tin plated after perforating. Insert tube is open seam construction with interlocking edges permitting circumferential spring action. Spring action permits insert to be loaded into wireway of connector. Length of insert same as length of connector wireway.

Tool - Hand tool illustrated, for use only with connectors intended to accommodate No. 10 or smaller conductors, see tabulation under General Character and Use for specific catalog numbers of tools - power actuated (pneumatic or hydraulic) tools not illustrated. Pneumatic tooling consists of a power handle and an interchangeable crimping.

\*Hoods With Integral Crimping Dies - Hydraulic tooling consists of a pump unit, interchangeable crimping heads and interchangeable crimping dies for the heads.

Refer to tabulation under General Character and Use for specific catalog numbers of tooling components.

E 13288

VOL. I  
AND REPORT

SEC 19

FIG. 2

A

B



M77-9280

"COPALUM" CAT. NO. A-52746 - SIZE 6 Al-Cu  
(ALTERNATE CAT. NO. 55696-1)


"COPALUM" CAT. NO. B-52745 - SIZE 8 Al-Cu  
(ALTERNATE CAT. NO. 55695-1)

PARALLEL SPLICE PRESSURE CABLE CONNECTORS -  
SEE ILLS. 28, 29

FIG. 2 (M77-9280)

General - These connectors are tool applied, crimp type Parallel Splice pressure cable connectors. They are fabricated as follows:

1. Body - Formed from rolled and welded copper sheet stock. Inside of connector barrel has pattern of circular indents covering entire wireway surface. Tin plated after forming. See Ills. 28 and 29 for dimensions.
2. Insert - Formed from perforated copper sheet stock. Tin plated after perforating. Insert tube is open seam construction with interlocking edges permitting circumferential spring action. Spring action permits insert to be loaded into wireway of connector. Length of insert same as length of connector wireway. Insert for Cat. Nos. 55695-1 and 55696-1 has flared ends to reduce the likelihood of easy removal.

Tool - Not illustrated, for use only with connectors intended to accommodate No. 10 or smaller conductors. Pneumatic Tool - Cat. No. 68068 - . Pneumatic tooling consists of a power handle and an interchangeable crimping. Die 68106 - for Cat. No. 52746 - (6 Al - Cu - size). Die 68105 - for Cat. No. 52745 - (8 Al - Cu - size). Refer to Ill. No. 31 for assembly instruction.

Alternate Tool - For use with Cat. Nos. 55695-1, 55696-1. AMP pneumatic tool Cat. No. 68068-6 used with two-piece die set as follows:

<u>Connector Cat. No.</u>	<u>Die Part Nos.</u>
55695-1	932620 (anvil), 932621 (indenter)
55696-1	932622 (anvil), 932623 (indenter)

See Ills. 34-39 for crimp assembly instructions.  
See Ills. 40-54 for crimp tool instructions.

T.F.  
A.N.

Marking - Not as shown on connector. Marking required on connector is manufacturer's name, size and asterisk. Asterisk to also appear on box - next to proper size and wire combination for the specific connector, i.e., "6 Al - Cu\*" and "8 Al - Cu\*" marking on box shown in Ill. 30.

Additional marking for Cat. Nos. 55695-1, 55696-1 includes red color band on connector for Cat. No. 55695-1; blue color band on connector for Cat. No. 55696-1. See Ills. 32 and 33 for details.

T.F.  
A.N.