

12		11		10		9		8		7		6	
CABLE # (SEE LIST) WIRE SIZE ANG	WIRE SIZE ANG	WIRE SPEC ANG	WIRE SIZE METRIC	WIRE SPEC METRIC	CONDUCTOR CRIMP HEIGHT (SECT C-C) (177-0-53)	CONDUCTOR CRIMP HEIGHT (SECT C-C) (177-0-53)	CONDUCTOR CRIMP WIDTH (SECT C-C) (177-0-12)	INSULATION CRIMP HEIGHT (SECT D-D) (177-0-53)	INSULATION CRIMP HEIGHT (SECT D-D) (177-0-53)	INSULATION CRIMP WIDTH (SECT D-D) (177-0-53)	INSULATION CRIMP HEIGHT (SECT D-D) (177-0-53)	INSULATION CRIMP WIDTH (SECT D-D) (177-0-53)	INSUL CRIMP OPTION TYPE DESC
US 22			0.35		1.40	1.30	2.05	1.95	1.95		2.60		2
CS 10			0.75/1.20		1.50	1.30/1.50		4.20*	4.15/4.20				2
CS 25			6.50		1.30	1.25	2.45	4.05*	4.05				2
US 18			0.75/1.10		1.50	1.30/1.50		2.35	2.20/2.45		4.10*		2
US 20			6.50		1.30	1.25		2.20	2.20				OPTION 2
CS 14			2.00/2.50		1.85	1.75/1.80		5.00*	4.80/5.00				2
CS 16			1.50		1.80	1.70	3.05	4.50/3.54	4.50*		5.20*		2
US 14			2.00/2.50		1.85	1.75/1.80		3.20	3.10/3.25				2
CS 18			1.50		1.80	1.70		2.10	2.00		3.60		2
US 21/10/20		ESB/AL/23-A	21/10-1.60*	1.60	1.90-1.60*	1.60	3.25	3.7-2.34*	3.7-2.34		4.30*		OPTION 1
CS N/A			2.5		N/A	N/A	3.45	N/A	N/A		5.20		2
CS N/A			2.5					N/A	N/A		N/A		2
CS 10			5.00/6.00		2.45	2.40/2.50*		5.20*	5.25/5.30		5.80*		OPTION 2
CS 12			4.00		2.20	2.05	3.85	5.30*	5.50*				2
CS 10			5.00/6.00		2.45	2.40/2.50*		3.10	4.30				OPTION 1
CS 12			4.00		2.20	2.20		RE USE TERMINI	4.20	4.35			1

* NOT VERIFIED TO STANDARD

STANDARD "B" FORM TOOLING DESIGN
CONDUCTOR CRIMP

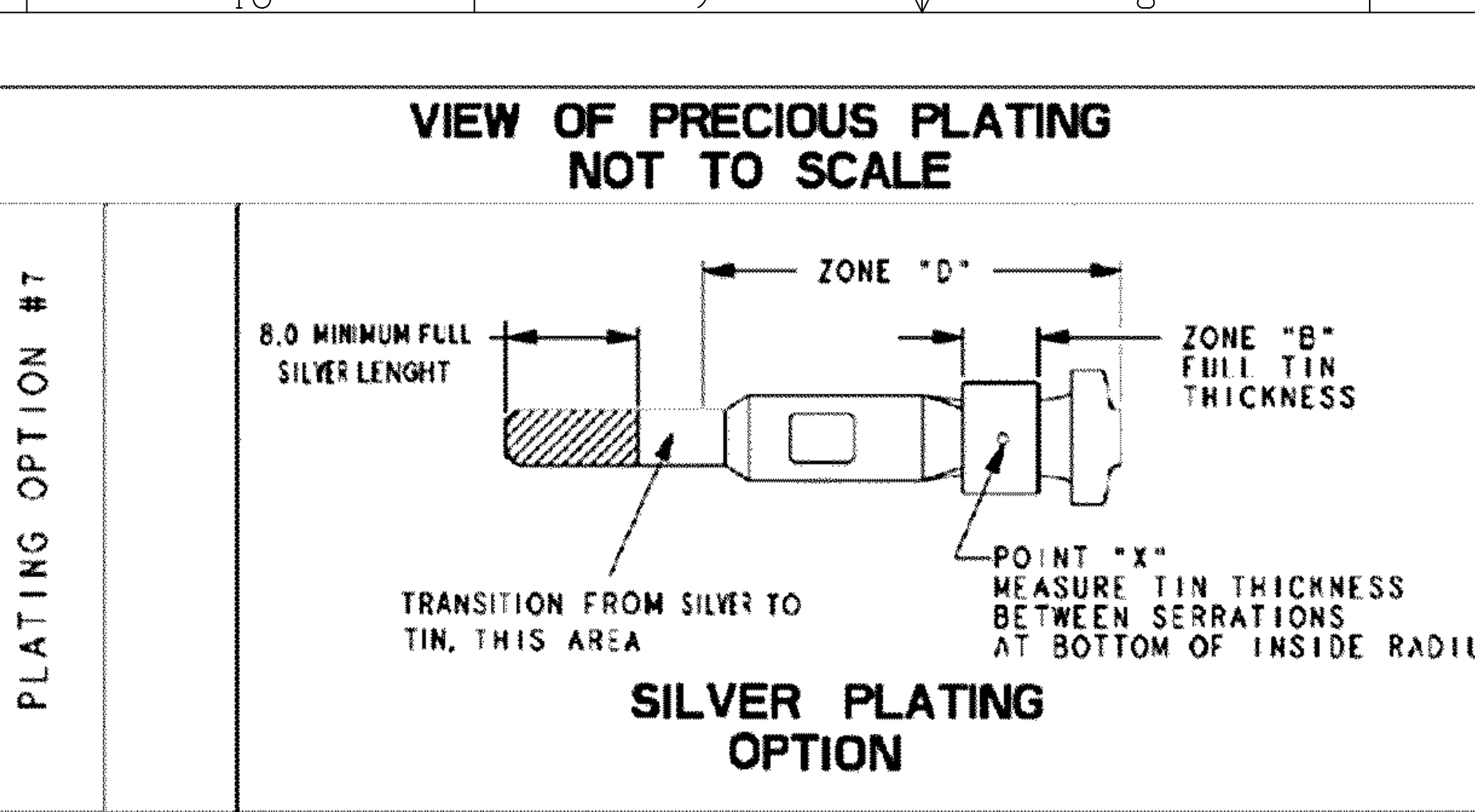
M E

STAND

CRIMP WIDTH	CORE/INSULATION OPTION	1		2		3		4		5		6		7		8		9		10	
		E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	
		±0.03	±0.03	±0.03	±0.03	±0.03	±0.03	±0.03	±0.03	±0.03	±0.03	±0.03	±0.03	±0.03	±0.03	±0.03	±0.03	±0.03	±0.03	±0.03	
2.03	CONDUCTOR	---	0.92	0.53	0.12	2.56	1.99	---	---	1.91	---	---	---	---	---	---	---	---	---	---	
2.45	CONDUCTOR	---	1.09	0.63	0.16	3.06	2.38	---	---	2.36	---	---	---	---	---	---	---	---	---	---	
2.60	INSULATION	2	---	---	---	---	---	---	---	0.60	---	---	---	---	---	---	---	---	---	---	
2.80	INSULATION	2	---	---	---	---	---	---	---	0.60	---	---	---	---	---	---	---	---	---	---	
3.03	CONDUCTOR	---	1.36	0.79	0.22	3.81	2.96	---	---	---	---	---	---	---	---	---	---	---	---	---	
3.25	CONDUCTOR	---	1.46	0.84	0.27	4.04	3.12	---	---	---	---	---	---	---	---	---	---	---	---	---	
3.45	CONDUCTOR	---	1.54	0.88	0.24	4.31	3.35	---	---	3.32	---	---	---	---	---	---	---	---	---	---	
3.60	INSULATION	2	---	---	---	---	---	---	---	0.60	---	---	---	---	---	---	---	---	---	---	
3.85	CONDUCTOR	---	1.72	0.99	0.28	4.61	3.70	---	---	---	---	---	---	---	---	---	---	---	---	---	
4.0	INSULATION	2	---	---	---	---	---	---	---	0.60	---	---	---	---	---	---	---	---	---	---	
4.30	INSULATION	1	---	---	---	---	---	---	---	0.60	---	---	---	---	---	---	---	---	---	---	
4.35	INSULATION	1	---	---	---	---	---	---	---	1.0	---	---	---	---	---	---	---	---	---	---	
5.20	INSULATION	2	---	---	---	---	---	---	---	1.00	---	---	---	---	---	---	---	---	---	---	
5.80	INSULATION	2	---	---	---	---	---	---	---	1.00	---	---	---	---	---	---	---	---	---	---	

CRIMP TOOLING DESIGN
INSULATION CRIMP OPTION 1

CRIMP TOOLING DESIGN
INSULATION CRIMP OPTION 2



MATERIAL TYPE PLATING OPT.	TYPE 2 OPTION # 7
PLATING	POST SILVER (1IN LIVER)
ZONE "A"	ELECTRO DEPOSITED PURE SILVER, RICLE UNDERPLATE NOT REQ. W6058C4710.0020.003MM)
ZONE "B"	ELECTRO MATT TIN PLATE W6058B2210.0015/0.0025MM)
ZONE "C"	----
ZONE "D"	ELECTRO MATT TIN PLATE

	05
	15
	14
	11
	05
	18
	24
	05
	05
	05
	24
	06

DATE	STATUS	REV	W/P	CHG	ZONE	REVISION HISTORY	AUTH	DR	APPROV
DWG	SYS	REV	W/P	CHG	ZONE				
03F1E1	R	01	-	-	-	ALL PARTS - REVISED AND REDAWN IN RDS SYSTEM. ADDED BOLT PART NUMBERS AND UPDATED WML CHART	4210504	J60	JAA/JAA
03F1E1	R	02	-	-	-	ALL PARTS - ADDED NMCI COLUMN ON WML CHART AND BLADE THICK TRUE POSITION WAS 0.10	421399	J60	JAA/JAA
03M1R1	R	03	-	-	-	13400512,15512730,10762774,15519823 - DIM "L" WAS 1.005; ALL PARTS - UPDATED WML PASTE UP AND REVISED LEVEL. "L" DUE TO ORIGINAL PPAI AND ADDED DELPHI FORMS & CHART. 33511839-44 - RELEASED	421737	J60	JAA/JAA
03C1C1	R	04	-	-	-	33111005 - RELEASED	423999	C60	JAA/JAA
03N1O1	R	05	-	-	-	15548841 - RELEASED	424541	C60	JAA/JAA
03M1R1	R	06	-	-	-	ALL PARTS - INSPECTION SYMBOL BALLOON WAS 0.30 TO 0.30-2 TYPE 10275921, 13469900, 15525490, 33400512-16, 33511840-42 UPDATED "WIRE SIZE" AND "CON DIAMETER" INFO ON CHART FOR 14/16 GAUGE	425921	C60	JAA/JAA
03J1L1	R	07	-	-	-	13969981, 15520916, 15519823, 15519823, 15512730, 13400512-16, 33511840-42 UPDATED PART AVAILABILITY	432751	040	JW/JW
03J1L1	R	08	-	-	-	13400512-14, 13400516, 33511840-43 33511843-44; ADDED "PLATING OPTION #7" VIEW	440022	DAV	JAA/JAA
03E1R1	R	09	-	-	-	35270385, 06 - RELEASED 15509074, 15512734 - WIRE SIZE WAS 2.5	441331	040	AH/AH
03F1E1	R	10	-	-	-	35270385 - CORRECTED PART AVAILABILITY IN PASTE UP	442676	J60	JAA/JAA
03M1R1	R	11	-	-	-	35270385 - UPDATED WML PASTE UP DWG, "L" WAS 1.4; ADDED "WIRE SIZE" 35270386 UPDATED WML PASTE UP DWG, "WIRE SIZE" METRIC WAS 0.5; ADDED PREVIOUS 2,3, "L" WAS 1.1; ADDED "W" VALUE; 3518916 - RELEASED	442605	040	LK/LK
03M1R1	R	12	-	-	-	13969981 - UPDATED PART AVAILABILITY	442649	J60	J60/J60
03C1C1	R	13	-	-	-	13681974,13805590,13971791,15425433 15509074,15512734,15512730,15512730, 15516296-97,15508090,15508090,15522351, 13400515 & 33501183-44 - ADDED PREVIOUS PLATING NOTE AND UPDATED REWIND OPTION "X" VIEW ON REELING OPTIONS, PLATING FEED CHART & VIEWS ON PASTE UP	552649	LV	C60/J60

(IMP) WIDTH (CM)

(CRIMP) WIDTH (CM)

(IMP) HEIGHT (CM)

(CRIMP) HEIGHT (CM)

INSULATION ON CRIMP
OPTION 2

SECTION C-C
SCALE 8:1

(R.D.) X3

F(RAD) 2X

WORKING SURFACES
MUST BE POLISHED
ALL AROUND

0.45/0.30 x 45°
CHAMFER FORM
BOTH SIDES

SEE DETAIL Y1

(RS.) 1/2X

G

N

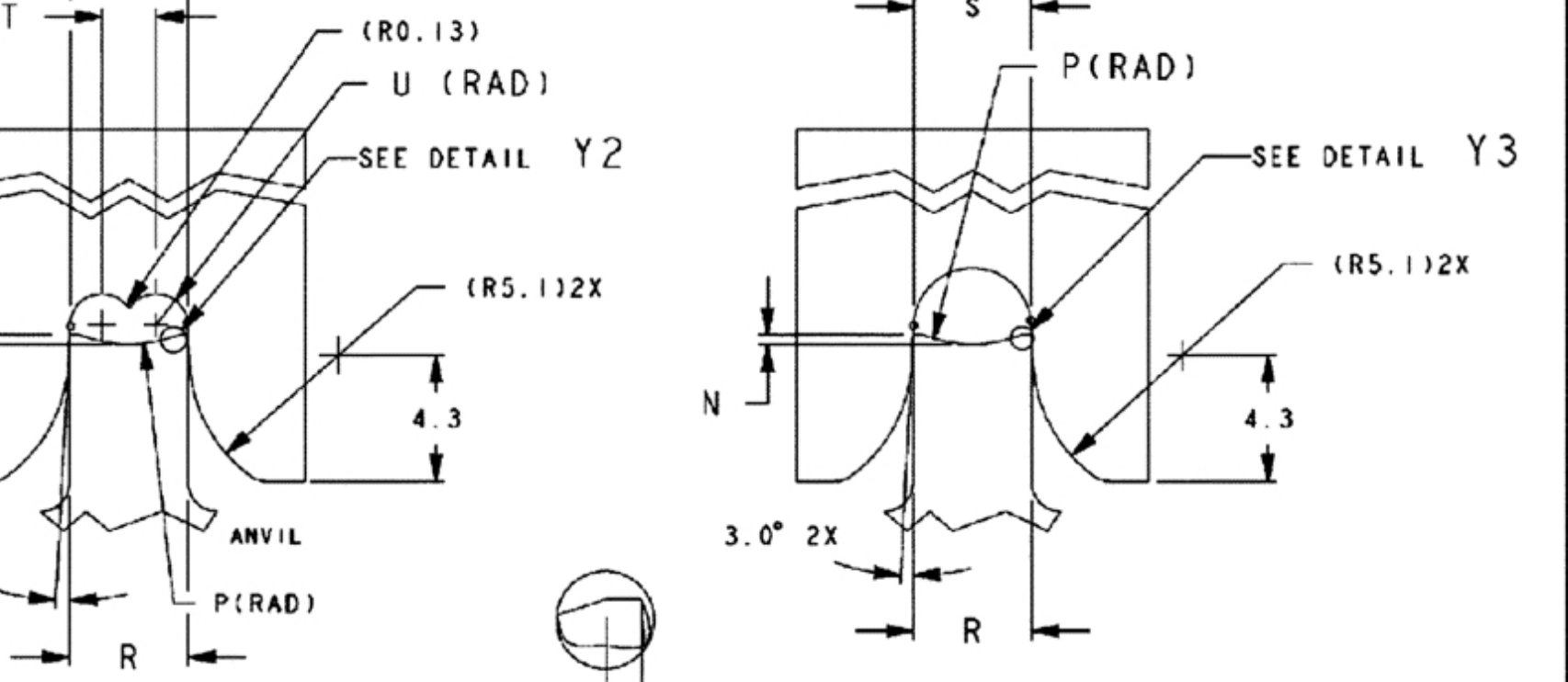
PUNCH

ANVIL

J(RAD)

K

3.0° 2X



	0.0005MM MINIMUM
--	------------------

0418	R	08	-	-	33400512-14, 33400516, 33511840-41 & 33511843-44	ADDED "PLATING OPTION 4" *"	440242	DAV	JAA	JO
0408	R	09	-	-	35270385,86 - RELEASED; 15509074, 15512734 - WIRE SIZE WAS 2,5		441331	AHD	AHD	LE
0409	R	10	-	-	35270385 & 35270386 - CORRECTED PART AVAILABILITY IN PASTE UP		442276	JGO	JAA	JI
0419	R	11	-	-	35270385 - UPDATED WML PASTE UP DWG. "L" WAS 1-4 & ADDED "C" VALUE; "WIRE SIZE" UPDATED WML PASTE UP DWG. "WIRE SIZE" METRIC WAS 0-5-1 "CT" WAS 10-2" WAS 2,3, "L" WAS 1-1 & ADDED "C" VALUE; 1531006 - RELEASED		442505	GDH	LJA	JI
0420	R	12	-	-	33619981 - UPDATED PART AVAILABILITY		442649	JGO	JGO	OM
0422	R	13	-	-	13681974, 13805590, 13971791, 15425613, 15432518, 15509070, 15512730-33, 15513652, 15516296 *", 15520890, 15520761, 15522351, 33400512 & 33501442 - ADDED PREVIOUS PLATING NOTE AND UPDATED REWIND FEED *" VIEW ON REELING OPTION PLATING OPTION CHART & VIEWS ON PASTE UP DWG; 15520890 - UPDATED PART AVAILABILITY		555249	LVD	CBD	JI

DETAIL Y1

OF IN.

TANGENT POINT SHOULD MATCH TOP AND BOTTOM.

0.30 FLAT 2X

DETAIL Y2

0.30 FLAT 2X

SHARP

PRE FREE

(2) (125 ± 0.60)

A

(6) DATE CODE THIS SIDE

(7) 1.25 (±0.125)

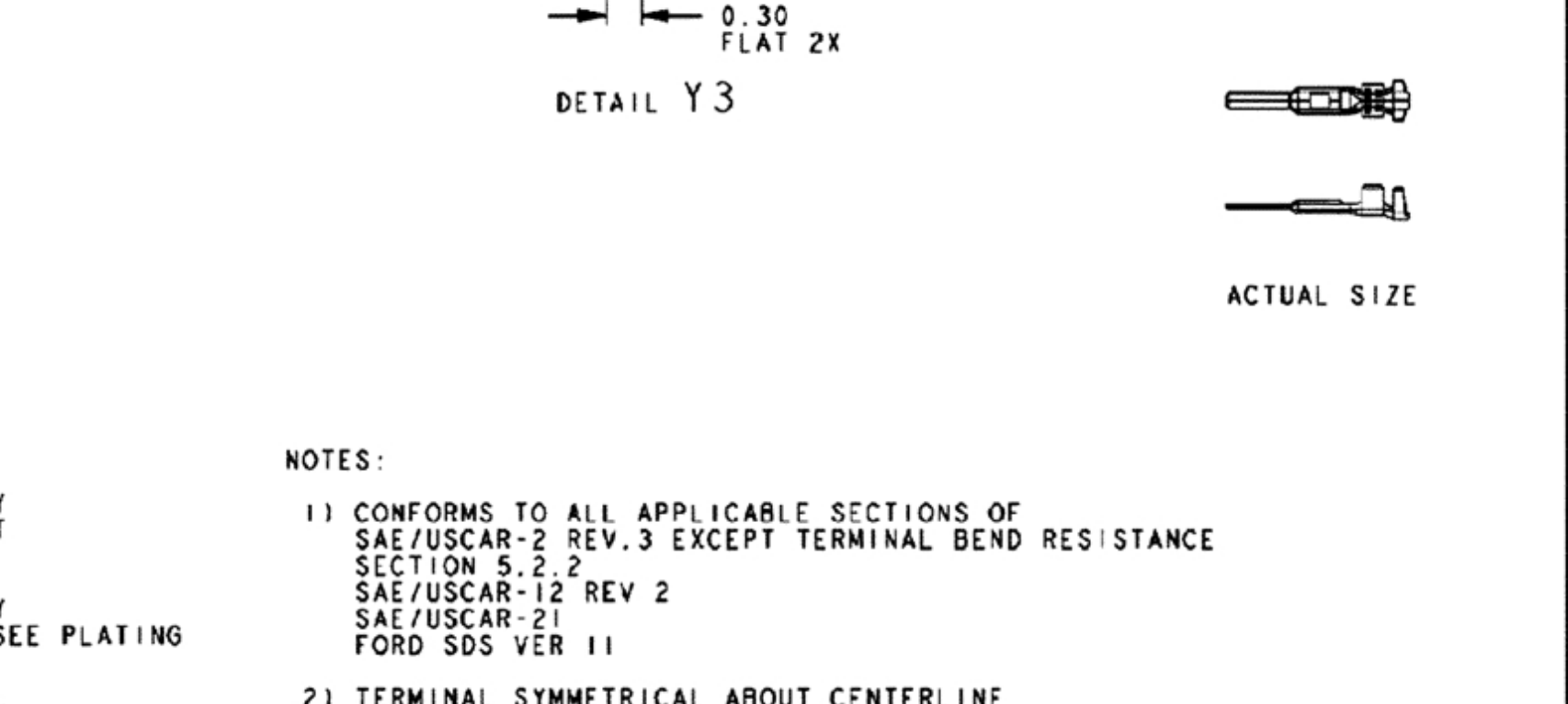
SHAPE AND LOCATION VARY FOR CABLE SEAL ONLY

(8) GRIP CODE PARALLEL A

MATERIALS:

MATERIAL TYPE 1: COPPER ALLOY PIPE WELDED. SEE PLATING CHART FOR INFORMATION.

MATERIAL TYPE 2: COPPER ALLOY BASE MATERIAL. POST PLATED. SEE CHART FOR INFORMATION.



-	-	Y	35316916
-	-	Y	35270385
-	-	Y	35270386
54001001	T	N	10762774
54001001RWA	T	N	15548841
54001001RWC	T	N	15512726
54001020	T	N	15512730
-	-	N	23400512
54001027	T	Y	15516298
54001027RWA	T	Y	

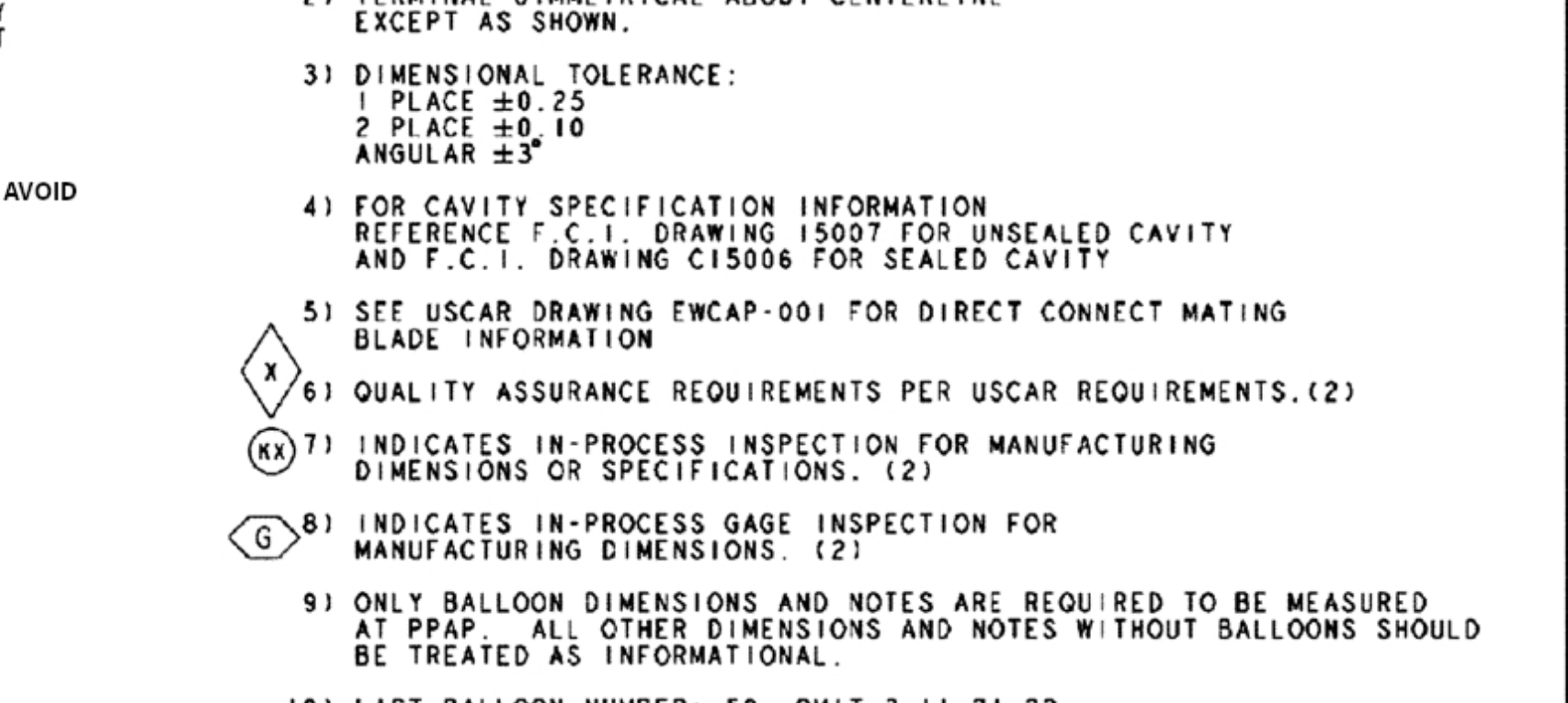
01	-	M6565.J00	5	
01	AB	M6565.J00	5	
01	AB	M6565.J00	5	
03	AH	M6565.J00	5	
01	AA	10762774	-	
01	AB	10762774	-	
01	AE	155119823	3	
01	AE	33511843	7	
01	AB	M6565.J00	5	
01	AA	15516209		

-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
15519823	01	AD	M6564J00
33511843	01	AC	M6564J00
-	-	-	-

PRECISION PLATING UNIT

PRECISION PLATING NOTES:

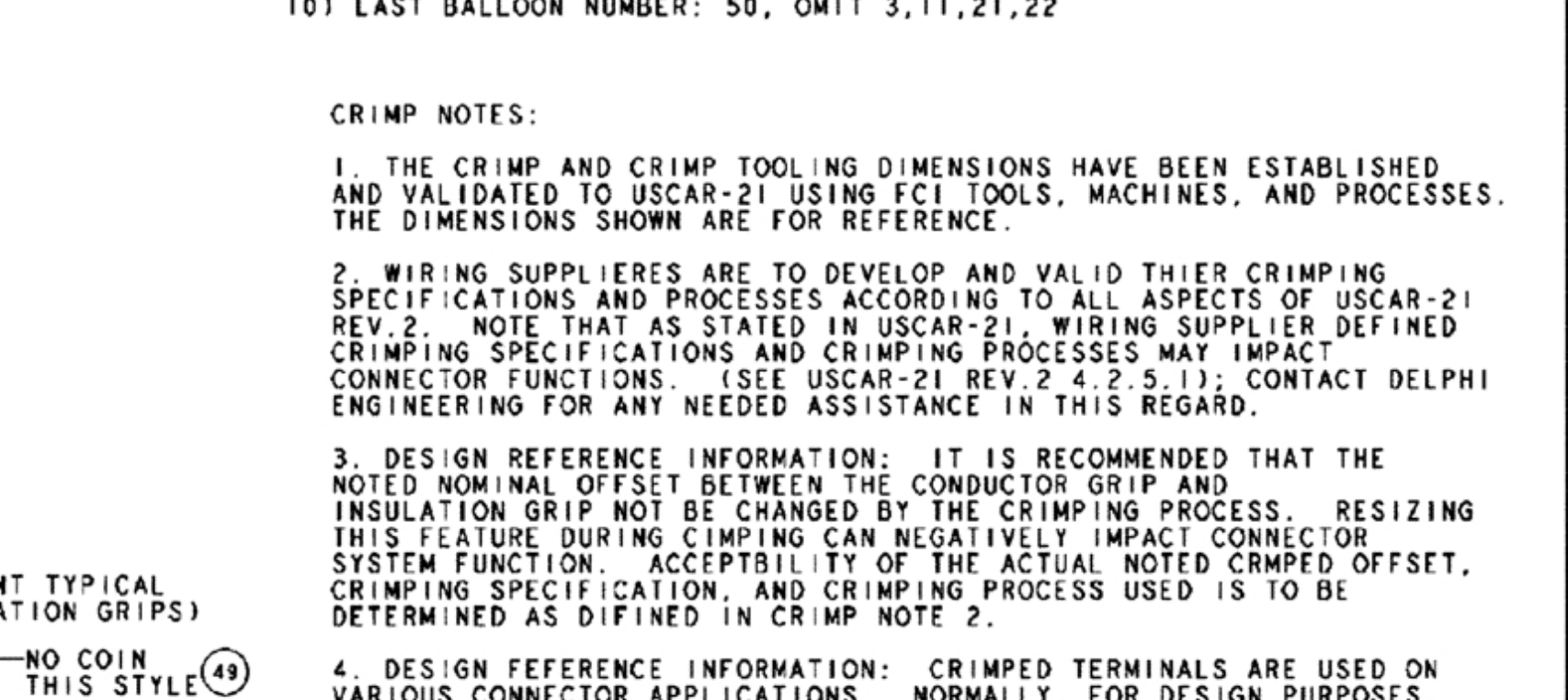
TIN AND NICKEL OVERLAP IS NECESSARY TO EXPOSURE OF BASE METAL PARTS TO BE SHIPPED TO THE PLATER ON REELS IN STRIP FORM.



54001021RWA	-	Y	33400513
F808800	T	Y	15509074
F808900RWA	T	Y	15512734
-	-	N	33400514
-	-	N	33400515
540011441	T	N	13691974
540011441RWC	T	N	15522351
540011401	T	N	10757692
540011401RWA	T	N	15524503
540011401RWC	T	N	13699990
54001301	T	N	15576793
54001301RWA	T	N	15524504
-	-	N	33400516
F875200	T	N	15509076

01	AR	13518298	
01	AD	33511844	7
01	AC	M6565J00	5
01	AC	15509074	-
01	AD	33511841	7
01	AD	33511842	4
01	AC	15519825	3
01	AC	13681974	-
03	AG	M6565J00	5
01	AB	10757692	-
01	AB	10757692	-
03	AB	M6565J00	5
01	AB	10757693	-
01	AD	33511840	7
01	AC	15520221	4

33511844	01	AB	M6564J00
-	-	-	-
33511841	01	AC	M6564J00
33511842	01	AB	M6564J00
15519825	01	AB	M6564J00
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
33511840	01	AC	M6564J00
15520221	01	AB	M6564J00



54001819	T	N	15425613
54001819RWA	T	N	15512733
54001819RWC	T	N	15513652
54001818	T	N	15435215
54001818RWA	T	N	15516296
54001818RWC	T	N	13971791
54001804	T	N	13805590
54001804RWA	T	N	15512732
54001804RWC	T	N	15516297
54001801	T	N	10762775
54001801RWA	T	N	15516294
54001801RWC	T	N	13751022
F975200	T	N	15520416
54002230	T	N	33501642

02	AC	15519829	2
01	AC	15425613	-
01	AC	15425613	-
01	AC	15519827	3
01	AC	15435215	-
01	AC	15435215	-
01	AC	15519824	1
01	AC	13805590	-
01	AC	13805590	-
03	AB	M6565J00	5
01	AB	10762775	-
01	AB	10762775	-
01	AD	15520917	4
01	AC	33511839	3

15519829	01	AB	M6564J00
-	-	-	-
-	-	-	-
15519827	01	AB	M6564J00
-	-	-	-
-	-	-	-
15519824	01	AB	M6564J00
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-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
15520912	01	AC	M6564J00
33511839	01	AA	M6564J00

The image contains two technical drawings of electrical components.

SECTION C-C INSULATION GRIP SINGLE WIRE

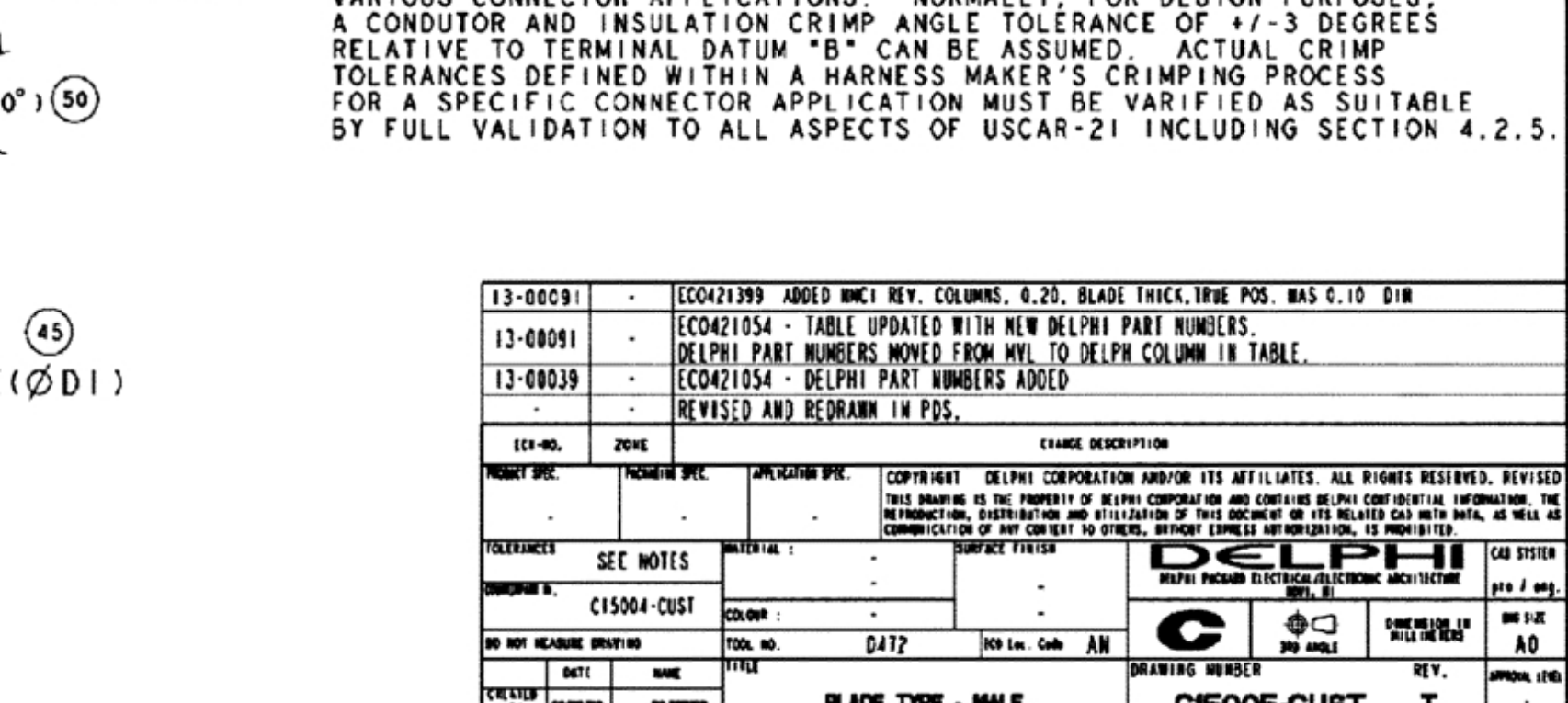
This drawing shows a cross-section of a single wire with a V-shaped insulation grip. Key dimensions and labels include:

- Top Left:** 0.250 (D1) A109 (14)
- Top Center:** 0.25 (D1), 0.15 TYP (ALL GRIPS), 20° REF. TIP (ALL GRIPS) (C11), (C12)
- Top Right:** 0.125 (D1) A109
- Center:** 0.30 MAX. DISALIGNMENT (ALL GRIPS), (D1), (D2), (D1/2), (D1)
- Bottom:** SECTION C-C, INSULATION GRIP SINGLE WIRE

SECTION C-C INSULATION GRIP CABLE SEAL

This drawing shows a cross-section of a cable seal with a V-shaped insulation grip. Key dimensions and labels include:

- Top Left:** 0.250 (D1) A109
- Top Center:** 0.25 (D1), 0.15 TYP (ALL GRIPS), 20° REF. TIP (ALL GRIPS) (C11), (C12)
- Top Right:** 0.125 (D1) A109
- Center:** 0.30 MAX. DISALIGNMENT (ALL GRIPS), (D1), (D2), (D1/2), (D1)
- Bottom:** SECTION C-C, INSULATION GRIP CABLE SEAL



54002230RWA	T	N	15512731
54002239	T	N	15520890
54002201	T	N	10762776
54002201RWA	T	N	15512725
54002201RWC	T	N	13969981
PART NUMBER	REV	SEALED	PART NUMBER
MVL			

01	AC	33501642	-	
01	AD	15520918	2	
03	AG	M6565J00	5	
01	AB	10762776	-	
01	AD	10762776	-	
REV	N/P	MAT'L SPEC	PLATING PROCESS OPTION	
PLATED				
APTIV				

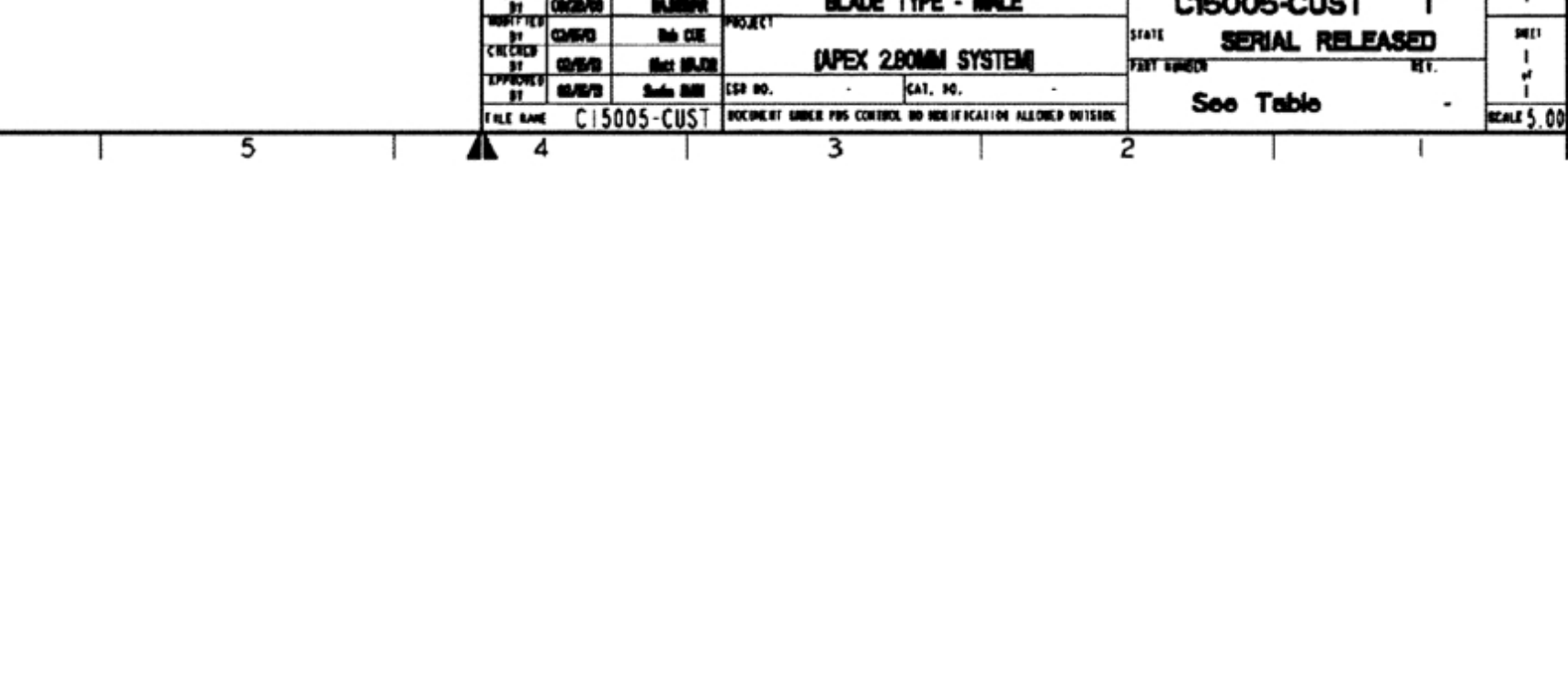
15520918	01	AB	M6564J00
-	-	-	-
-	-	-	-
-	-	-	-
PAR NUMBER	REV	N/P	MAT'L SPEC
UNPLATED			

• **APTIV** •

CONNECTION SYSTEMS

WARRIN, DE

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BUILD, SEE MATH MANUAL.

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TYPE		PART DRAWING		DATE	
(SEE TOP)  DIST. CODE		DR AP02 JAVIER ESQUIVEL AP03 J. S. ALVARADO AP04 GERARDO GÓMEZ L. AP05		DATE 14MR13 14MR13 14MR13	
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DIMENSIONS ARE IN MILLIMETERS		DRAWING NAME			
TOLERANCE		TAXI TERM M APEX 2.8 SN			
		DRAWING NUMBER			

NOTES

1. UNLESS OTHERWISE SPECIFIED AND/OR INDICATED:

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AUTOMATICALLY ROUNDED BY COMPUTER FOR INSPECTION
(SEE MATH MODEL FOR PRECISE DIMENSIONS). FOR ALL
OTHER DIMENSIONS NOT SHOWN BUT REQUIRED FOR TOOL
BUILD, SEE MATH MODEL FOR PRECISE TOOL PATH DATA.

TOLERANCE 1
OTHERWISE

	DECIMAL:
	TWO PLACE:
	THREE PLACE:

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STYLE: _____	DATE: _____										
VOLUME: _____ ORDER CODE: _____	FOR: _____										
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THIRD ANGLE PROJECTION DO NOT SCALE USE MATH DATA	DRAWING NUMBER: _____ 10819199 <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 15%;">Size</td> <td style="width: 15%;">SCALE</td> <td style="width: 15%;">FRAME NO</td> <td style="width: 15%;">SHEET NO</td> <td style="width: 15%;">TOTAL SHEETS</td> </tr> <tr> <td>A1X3</td> <td>1 OF 2</td> <td>1 OF 2</td> <td>1 OF 1</td> <td>13 OF 13</td> </tr> </table>	Size	SCALE	FRAME NO	SHEET NO	TOTAL SHEETS	A1X3	1 OF 2	1 OF 2	1 OF 1	13 OF 13
Size	SCALE	FRAME NO	SHEET NO	TOTAL SHEETS							
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