

Company Name		Part Name	Tube (Main) LHD
Drawing #	90672-93	File Name	90672-93(Good).gmt
Date	03/04/2003, 12:47:54	UOM (Last Step) :	MM
Operator	Raul F. Gonzalez	Serial #	1
Fixture Usage	[\ \]	Note	

No.	Feature	Actual	Dev. Tol.	Dev. Nom.	Nominal	Tol. Plus	Tol. Minus
1	Current stylus is 1: [Entered Dia. - 2.7000mm]						
2	Recalled FCS 2 and established as PCS 1.						
3	-X Plane [4 pts]	X	-1.0061				
		AX/Y	-33.9639°				
		Ay/z	-179.0734°				
		AZ/X	-0.6242°				
4	1 [10 pts]	OD	22.3534				
		Y	0.7166				
		Z	0.1582				
		AX/Y	-33.9546°				
		Ay/z	-179.2660°				
		AZ/X	-0.4942°				
5	A <i>(Intersection 3,4)</i>	X	-0.3589				
		Y	0.9582				
		Z	0.1613				
6	2 [10 pts]	OD	22.2357				
		Z	5.7734				
		X	109.9414				
		AX/Y	-84.3541°				
		AY/Z	-174.7546°				
		Az/x	-42.8811°				
7	B <i>(Intersection 4,6)</i>	X	117.6815				
		Y	-78.4860				
		Z	-1.1432				
		Miss	0.5763				
8	3 [10 pts]	OD	22.2152				
		Z	-22.7906				
		X	140.8982				
		AX/Y	-89.9887°				
		AY/Z	-179.9909°				
		Az/x	-38.5901°				
9	C <i>(Intersection 6,8)</i>	X	140.9123				
		Y	-312.7952				
		Z	-22.8916				
		Miss	0.1406				

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No.	Feature	Actual	Dev. Tol.	Dev. Nom.	Nominal	Tol. Plus	Tol. Minus
10	4 [10 pts]	OD 22.2490 Z -126.9061 X 36.2870 AX/Y -82.2349° AY/Z 172.2935° Azx 44.7801°					
11	D (Intersection 8,10)	X 141.0583 Y -768.3845 Z -22.9200 Miss 0.0224					
12	Current stylus is 3: [Pre-Qual Ball - 0.0000mm]						
13	5 [10 pts]	OD 22.4971 Y -1039.0917 Z 111.4859 AX/Y -139.5164° Ay/z 139.3947° AZ/X 143.8052°					
14	E (Intersection 10,13)	X 159.3404 Y -903.1254 Z -4.8709 Miss 0.3977					
15	-X Plane [4 pts]	X -781.5987 AX/Y 40.3956° Ay/z -40.6387° AZ/X -36.1421°					
16	F (Intersection 13,15)	X 81.3981 Y -969.6113 Z 51.9229					
17	Current stylus is 1: [Entered Dia. - 2.7000mm]						
18	A (RCL5)	X -0.3589 Y 0.9582 Z 0.1613					
19	X Y Z Origin Set						
20	PCS 2 Established						

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21 A ^(RCL 5)	X 0.0000 Y -0.0000 Z 0.0000					
22 B ^(RCL 7)	X 118.0404 Y -79.4442 Z -1.3045					
23 C ^(RCL 9)	X 141.2712 Y -313.7534 Z -23.0529					
24 D ^(RCL 11)	X 141.4172 Y -769.3428 Z -23.0814					
25 E ^(RCL 14)	X 159.6993 Y -904.0836 Z -5.0322					
26 F ^(RCL 16)	X 81.7570 Y -970.5696 Z 51.7616					
27 True Length A-B ^(5,7)	Pol-R 142.2906 AX/Y 146.0584 AY/Z 0.9407 AZ/X 179.3668					
28 True Length B-C ^(7,9)	Pol-R 236.4602 AX/Y 95.6621 AY/Z 5.3030 AZ/X 136.8876					
29 True Length C-D ^(9,11)	Pol-R 455.5894 AX/Y 90.0184 AY/Z 0.0036 AZ/X 168.9664					

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30	True Length D-E ^(11,14)	Pol-R 137.1682 AX/Y 97.7269 AY/Z -7.6296 AZ/X -135.3675					
31	True Length E-F ^(14,16)	Pol-R 117.1364 AX/Y 40.4647 AY/Z -40.5047 AZ/X -36.0795					
32	True Length A-F ^(5,16)	Pol-R 975.3813 AX/Y 94.8150 AY/Z -3.0528 AZ/X -147.6615					
33	#1 X Y ANGLE[10 pts] ^(RCL 4)	OD 22.3534 Y -0.0000 Z 0.0000 AX/Y -33.9546° Ay/z -179.2660° AZ/X -0.4942°					
34	#2 X Y ANGLE[10 pts] ^(RCL 6)	OD 22.2357 Z 5.7001 X 110.2056 AX/Y -84.3541° AY/Z -174.7546° Az/x -42.8811°					
35	#4 X Y ANGLE[10 pts] ^(RCL 10)	OD 22.2490 Z -127.1971 X 36.5152 AX/Y -82.2349° AY/Z 172.2935° Az/x 44.7801°					
36	#5 X Y ANGLE[10 pts] ^(RCL 13)	OD 22.4971 Y -1040.3563 Z 111.5872 AX/Y -139.5164° Ay/z 139.3947° AZ/X 143.8052°					

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37	#1 Y Z ANGLE[10 pts] ^(RCL 4)	OD 22.3534 Y -0.0000 Z 0.0000 AX/Y -33.9546° Ay/z -179.2660° AZ/X -0.4942°					
38	#2 Y Z ANGLE[10 pts] ^(RCL 6)	OD 22.2357 Z 5.7001 X 110.2056 AX/Y -84.3541° AY/Z -174.7546° Az/x -42.8811°					
39	#4 Y Z ANGLE[10 pts] ^(RCL 10)	OD 22.2490 Z -127.1971 X 36.5152 AX/Y -82.2349° AY/Z 172.2935° Az/x 44.7801°					
40	#5 Y Z ANGLE[10 pts] ^(RCL 13)	OD 22.4971 Y -1040.3563 Z 111.5872 AX/Y -139.5164° Ay/z 139.3947° AZ/X 143.8052°					
41	#1 Z X ANGLE[10 pts] ^(RCL 4)	OD 22.3534 Y -0.0000 Z 0.0000 AX/Y -33.9546° Ay/z -179.2660° AZ/X -0.4942°					
42	#5 Z X ANGLE[10 pts] ^(RCL 13)	OD 22.4971 Y -1040.3563 Z 111.5872 AX/Y -139.5164° Ay/z 139.3947° AZ/X 143.8052°					

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43	3D Plane [3 pts] ^(Fit 5,7,9)	Z 0.0000 Axy -119.2742° AY/Z 95.6131° AZ/X 93.1535°					
44	Z Axis Oriented						
45	A ^(RCL 5)						
46	B ^(RCL 7)						
47	X/Y Axes Aligned						
48	A ^(RCL 5)						
49	X Y Z Origin Set						
50	PCS 3 Established						
51	Relative Angle #1 [10 pts] ^(RCL 8)	OD 22.2357 Z -0.2882 X 142.2913 AX/Y -50.5488° AY/Z 179.9248° Azx 0.0914°					
52	PCS 2 now being used.						
53	3D Plane [3 pts] ^(Fit 7,9,11)	Z 109.4684 Axy 0.0145° AY/Z 89.9863° AZ/X 46.8143°					
54	Z Axis Oriented						
55	B ^(RCL 7)						
56	C ^(RCL 9)						
57	X/Y Axes Aligned						
58	A ^(RCL 5)						
59	X Y Z Origin Set						
60	PCS 4 Established						
61	Relative angle #2 [10 pts] ^(RCL 8)	OD 22.2152 Z 79.9386 X 119.7891 AX/Y -97.7197° AY/Z -179.9911° Azx -179.9346°					
62	PCS 2 now being used.						

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63	3D Plane [3 pts] ^(Fit 9,11,14)	Z -162.7997					
		Axy -179.9780°					
		AY/Z 90.0218°					
		AZ/X 134.7136°					
64	Z Axis Oriented						
65	C ^(RCL 9)						
66	D ^(RCL 11)						
67	X/Y Axes Aligned						
68	A ^(RCL 5)						
69	X Y Z Origin Set						
70	PCS 5 Established						
71	Relative Angle #3 [10 pts] ^(RCL 10)	OD 22.2490					
		Z -116.0811					
		X -63.5461					
		AX/Y -79.1359°					
		AY/Z 179.9718°					
		AzX 0.1471°					
72	PCS 2 now being used.						
73	3D Plane [3 pts] ^(Fit 11,14,16)	Z -105.7472					
		Axy 20.7538°					
		AY/Z 78.2132°					
		AZ/X 61.1599°					
74	Z Axis Oriented						
75	D ^(RCL 11)						
76	E ^(RCL 14)						
77	X/Y Axes Aligned						
78	A ^(RCL 5)						
79	X Y Z Origin Set						
80	PCS 6 Established						
81	Relative Angle #4 [10 pts] ^(RCL 13)	OD 22.4971					
		Y -967.8931					
		Z -91.1318					
		AX/Y -147.8145°					
		AyZ 179.8174°					
		AZ/X 179.8851°					
82	PCS 2 now being used.						