



SIZE	ACTUAL SIZE		SIZE	ACTUAL SIZE		SIZE	ACTUAL SIZE		SIZE	ACTUAL SIZE	
	W DIA	I DIA		W DIA	I DIA		W DIA	I DIA		W DIA	I DIA
177	1.770	1.770	177	1.770	1.770	177	1.770	1.770	177	1.770	1.770
178	1.780	1.780	178	1.780	1.780	178	1.780	1.780	178	1.780	1.780
179	1.790	1.790	179	1.790	1.790	179	1.790	1.790	179	1.790	1.790
180	1.800	1.800	180	1.800	1.800	180	1.800	1.800	180	1.800	1.800
181	1.810	1.810	181	1.810	1.810	181	1.810	1.810	181	1.810	1.810
182	1.820	1.820	182	1.820	1.820	182	1.820	1.820	182	1.820	1.820
183	1.830	1.830	183	1.830	1.830	183	1.830	1.830	183	1.830	1.830
184	1.840	1.840	184	1.840	1.840	184	1.840	1.840	184	1.840	1.840
185	1.850	1.850	185	1.850	1.850	185	1.850	1.850	185	1.850	1.850
186	1.860	1.860	186	1.860	1.860	186	1.860	1.860	186	1.860	1.860
187	1.870	1.870	187	1.870	1.870	187	1.870	1.870	187	1.870	1.870
188	1.880	1.880	188	1.880	1.880	188	1.880	1.880	188	1.880	1.880
189	1.890	1.890	189	1.890	1.890	189	1.890	1.890	189	1.890	1.890
190	1.900	1.900	190	1.900	1.900	190	1.900	1.900	190	1.900	1.900
191	1.910	1.910	191	1.910	1.910	191	1.910	1.910	191	1.910	1.910
192	1.920	1.920	192	1.920	1.920	192	1.920	1.920	192	1.920	1.920
193	1.930	1.930	193	1.930	1.930	193	1.930	1.930	193	1.930	1.930
194	1.940	1.940	194	1.940	1.940	194	1.940	1.940	194	1.940	1.940
195	1.950	1.950	195	1.950	1.950	195	1.950	1.950	195	1.950	1.950
196	1.960	1.960	196	1.960	1.960	196	1.960	1.960	196	1.960	1.960
197	1.970	1.970	197	1.970	1.970	197	1.970	1.970	197	1.970	1.970
198	1.980	1.980	198	1.980	1.980	198	1.980	1.980	198	1.980	1.980
199	1.990	1.990	199	1.990	1.990	199	1.990	1.990	199	1.990	1.990
200	2.000	2.000	200	2.000	2.000	200	2.000	2.000	200	2.000	2.000
201	2.010	2.010	201	2.010	2.010	201	2.010	2.010	201	2.010	2.010
202	2.020	2.020	202	2.020	2.020	202	2.020	2.020	202	2.020	2.020
203	2.030	2.030	203	2.030	2.030	203	2.030	2.030	203	2.030	2.030
204	2.040	2.040	204	2.040	2.040	204	2.040	2.040	204	2.040	2.040
205	2.050	2.050	205	2.050	2.050	205	2.050	2.050	205	2.050	2.050
206	2.060	2.060	206	2.060	2.060	206	2.060	2.060	206	2.060	2.060
207	2.070	2.070	207	2.070	2.070	207	2.070	2.070	207	2.070	2.070
208	2.080	2.080	208	2.080	2.080	208	2.080	2.080	208	2.080	2.080
209	2.090	2.090	209	2.090	2.090	209	2.090	2.090	209	2.090	2.090
210	2.100	2.100	210	2.100	2.100	210	2.100	2.100	210	2.100	2.100
211	2.110	2.110	211	2.110	2.110	211	2.110	2.110	211	2.110	2.110
212	2.120	2.120	212	2.120	2.120	212	2.120	2.120	212	2.120	2.120
213	2.130	2.130	213	2.130	2.130	213	2.130	2.130	213	2.130	2.130
214	2.140	2.140	214	2.140	2.140	214	2.140	2.140	214	2.140	2.140
215	2.150	2.150	215	2.150	2.150	215	2.150	2.150	215	2.150	2.150
216	2.160	2.160	216	2.160	2.160	216	2.160	2.160	216	2.160	2.160
217	2.170	2.170	217	2.170	2.170	217	2.170	2.170	217	2.170	2.170
218	2.180	2.180	218	2.180	2.180	218	2.180	2.180	218	2.180	2.180
219	2.190	2.190	219	2.190	2.190	219	2.190	2.190	219	2.190	2.190
220	2.200	2.200	220	2.200	2.200	220	2.200	2.200	220	2.200	2.200
221	2.210	2.210	221	2.210	2.210	221	2.210	2.210	221	2.210	2.210
222	2.220	2.220	222	2.220	2.220	222	2.220	2.220	222	2.220	2.220
223	2.230	2.230	223	2.230	2.230	223	2.230	2.230	223	2.230	2.230
224	2.240	2.240	224	2.240	2.240	224	2.240	2.240	224	2.240	2.240
225	2.250	2.250	225	2.250	2.250	225	2.250	2.250	225	2.250	2.250
226	2.260	2.260	226	2.260	2.260	226	2.260	2.260	226	2.260	2.260
227	2.270	2.270	227	2.270	2.270	227	2.270	2.270	227	2.270	2.270
228	2.280	2.280	228	2.280	2.280	228	2.280	2.280	228	2.280	2.280
229	2.290	2.290	229	2.290	2.290	229	2.290	2.290	229	2.290	2.290
230	2.300	2.300	230	2.300	2.300	230	2.300	2.300	230	2.300	2.300
231	2.310	2.310	231	2.310	2.310	231	2.310	2.310	231	2.310	2.310
232	2.320	2.320	232	2.320	2.320	232	2.320	2.320	232	2.320	2.320
233	2.330	2.330	233	2.330	2.330	233	2.330	2.330	233	2.330	2.330
234	2.340	2.340	234	2.340	2.340	234	2.340	2.340	234	2.340	2.340
235	2.350	2.350	235	2.350	2.350	235	2.350	2.350	235	2.350	2.350
236	2.360	2.360	236	2.360	2.360	236	2.360	2.360	236	2.360	2.360
237	2.370	2.370	237	2.370	2.370	237	2.370	2.370	237	2.370	2.370

This military standard is approved by the Department of Defense and is mandatory on all activities. All activities must all use engineering and design applications and for regulations are shall be made from this document.

P. 1 MS2953-11 11-11-63	SUPPLEMENTAL NUMBER	TITLE PACIFIC, PREPARED, EXTRACORDINARY PUL MATERIAL, "O" 1210	MILITARY STANDARD MS29513
PROCEDURE SPECIFICATION 222-525	REVISIONS 001/ 93	SHEET 1 OF 2	APPROVED 11 May 63 REVISED 6 21 May 63 6 18 May 64

DD FORM 672-1

FIG. NO. 5320-0370

NOTES TO BUYER: EXACTS ORDER TO 6 11-11-63-1/4. PRINT LEFT
 BORDER-LIKE ONE INCH FROM LEFT EDGE OF 6-11-1/2 SHEET.
 PRINT CENTER BORDER LINE 1/8 INCH FROM BOTTOM EDGE OF 6-11-1/2
 SHEET. DIMENSIONS FROM HOLE TO BE INCLUDED ON 6-11-1/2 SHEET.

DRAWN BY _____
 TYPED BY _____
 CHECKED BY _____

FED. SUP CLASS 33D											
R1 NO SIZE	ACTUAL SIZE		R1 NO SIZE	ACTUAL SIZE		R1 NO SIZE	ACTUAL SIZE		R1 NO SIZE	ACTUAL SIZE	
	V DIA	I DIA		V DIA	I DIA		V DIA	I DIA		V DIA	I DIA
159			359	.210	1.005	3.775			171	.375	1.000
160			360			3.850			172		1.000
161			361			3.925			173		1.000
162			362			4.000			174		1.000
163			363			4.075			175		1.000
164			364			4.150					
165			365			4.225					
166			366			4.300					
167			367			4.375					
168			368			4.450					
169			369			4.525					
170			370			4.600					
171			371			4.675					
172			372			4.750					
173			373			4.825					
174			374			4.900					
175			375			4.975					
176			376			5.050					
177			377			5.125					
178			378			5.200					
179			379			5.275					
180			380			5.350					
181			381			5.425					
182			382			5.500					
183			383			5.575					
184			384			5.650					
185			385			5.725					
186			386			5.800					
187			387			5.875					
188			388			5.950					
189			389			6.025					
190			390			6.100					
191			391			6.175					
192			392			6.250					
193			393			6.325					
194			394			6.400					
195			395			6.475					
196			396			6.550					
197			397			6.625					
198			398			6.700					
199			399			6.775					
200			400			6.850					
201			401			6.925					
202			402			7.000					
203			403			7.075					
204			404			7.150					
205			405			7.225					
206			406			7.300					
207			407			7.375					
208			408			7.450					
209			409			7.525					
210			410			7.600					
211			411			7.675					
212			412			7.750					
213			413			7.825					
214			414			7.900					
215			415			7.975					
216			416			8.050					
217			417			8.125					
218			418			8.200					
219			419			8.275					
220			420			8.350					
221			421			8.425					
222			422			8.500					
223			423			8.575					
224			424			8.650					
225			425			8.725					
226			426			8.800					
227			427			8.875					
228			428			8.950					
229			429			9.025					
230			430			9.100					
231			431			9.175					
232			432			9.250					
233			433			9.325					
234			434			9.400					
235			435			9.475					
236			436			9.550					
237			437			9.625					
238			438			9.700					
239			439			9.775					
240			440			9.850					
241			441			9.925					
242			442			10.000					
243			443			10.075					
244			444			10.150					
245			445			10.225					
246			446			10.300					
247			447			10.375					
248			448			10.450					
249			449			10.525					
250			450			10.600					
251			451			10.675					
252			452			10.750					
253			453			10.825					
254			454			10.900					
255			455			10.975					
256			456			11.050					
257			457			11.125					
258			458			11.200					
259			459			11.275					
260			460			11.350					
261			461			11.425					
262			462			11.500					
263			463			11.575					
264			464			11.650					
265			465			11.725					
266			466			11.800					
267			467			11.875					
268			468			11.950					
269			469			12.025					
270			470			12.100					
271			471			12.175					
272			472			12.250					
273			473			12.325					
274			474			12.400					
275			475			12.475					
276			476			12.550					
277			477			12.625					
278			478			12.700					
279			479			12.775					
280			480			12.850					
281			481			12.925					
282			482			13.000					
283			483			13.075					
284			484			13.150					
285			485			13.225					
286			486			13.300					
287			487			13.375					
288			488			13.450					
289			489			13.525					
290			490			13.600					
291			491			13.675					
292			492			13.750					
293			493			13.825					
294			494			13.900					
295			495			13.975					
296			496			14.050					
297			497			14.125					
298			498			14.200					
299			499			14.275					
300			500			14.350					

This drawing is approved by the Department of Defense and is mandatory on all military installations for all new equipment and design applications and for replacement use. It shall be used for all such applications.

(C) DIMENSIONS (LINE SIZE, HOLE DIAMETER, SIZE, AND TOLERANCE) OF THIS STANDARD ARE THE SUBJECT OF INTERNATIONAL STANDARDIZATION AGREEMENT AND ARE TO BE USED AND TAKEN AS SUCH. SUCH DEVIATION OR CALCULATION OF THIS STANDARD IS PROHIBITED. THE INTERNATIONAL ORGANIZATION FOR STANDARDIZATION WILL ADVISE THE NATIONAL BUREAU OF STANDARDS OFFICE IN THAT APPROPRIATE ACTION MAY BE TAKEN EMPLOYING THE INTERNATIONAL AGREEMENT CONCERNED.

DIMENSION IS INCHES.

(C) DIMENSIONS TO AND OVER THIS 0.0, 155 THIS 170, 275 THIS 186, 350 THIS 375, 461 THIS 475.

FOR HOLE FEATURE FEATURES, THIS STANDARD TOLERANCE FOR PRODUCTION LOTS SHALL BE UNLESS OTHERWISE SPECIFIED. DIMENSIONAL TOLERANCES SHALL BE OF THE HOLE OR SHAFT OR H/T OR MATING FOR FIT.

P.A. 23U-11 Date: 10 Rev: 10 Eng: 10	INTERNATIONAL STANDARD	TITLE PIERCE, PROFORM, STANDARD FOR ELECTRIC, OF 33D	MILITARY STANDARD MS29513
	PRODUCTION SPECIFICATION 2-1-11	SUPERSEDES 23U-11	SHEET 2 OF

DD FORM 672-1

APPROVED BY: [Signature]
 TYPED BY: _____
 CHECKED BY: _____

NOTES TO PRINTED SPECIFICATION TO A-37/3100-2/4. PRINT LEFT
 BORDER-LINE ONE INCH FROM LEFT EDGE OF 310-1/2 SHEET.
 PRINT BOTTOM BORDER-LINE ONE INCH FROM BOTTOM EDGE OF 310-1/2
 SHEET. SIGNATURE FORS NOT TO BE INCLUDED ON 310-1/2 SHEET.

APPROVED BY: [Signature] REVISED [Signature] SHEETS 1 AND 2.