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TABLE I

PART NUMBER	NOM. DIA.	A	C MAX.	D DIA.	E DIA. MAX.	F DRIVING FLATS	H MAX.	J DIA. MAX.	K MAX.	N MIN.	R RAD.	HOLE SIZE	BREAK-OFF LIMITS	PREVAILING TORQUE IN. LBS. MIN.	DOUBLE SHEAR STRENGTH LBS. MIN.	TENSILE STRENGTH LBS. MIN.
PLT 224-5-(*)	.1640	.250 .244	.285	.1645 .1635	.1625	.086 .081	.096	.244	.257	.272	.020 .010	.1680 .1650	+.088 +.000	1.0	3150	900
PLT 224-6-(*)	.2021	.312 .305	.320	.2026 .2016	.1980	.104 .099	.113	.300	.288	.340	.025 .015	.2080 .2030	+.103 +.015	1.5	4600	1400
PLT 224-8-(*)	.2645	.375 .367	.355	.2651 .2641	.2590	.135 .130	.135	.384	.325	.409	.025 .015	.2685 .2655	+.130 +.032	2.5	7900	2100
PLT 224-10-(*)	.3115	.437 .429	.440	.3120 .3110	.3095	.152 .147	.160	.427	.396	.479	.030 .015	.3150 .3120	+.130 +.027	3.5	11350	3600
PLT 224-12-(*)	.3740	.500 .491	.525	.3745 .3735	.3725	.185 .180	.190	.516	.473	.548	.030 .015	.3780 .3750	+.130 +.027	4.0	16450	5600

(\*) SEE TABLE II FOR SECOND DASH NUMBER AND APPROVED CALLOUT.

TABLE II

SECOND DASH NUMBER	G GRIP	GRIP RANGE		L REF.					SECOND DASH NUMBER	G GRIP	GRIP RANGE		L REF.				
		MIN.	MAX.	PLT 224							MIN.	MAX.	PLT 224				
				-5-(*)	-6-(*)	-8-(*)	-10-(*)	-12-(*)					-5-(*)	-6-(*)	-8-(*)	-10-(*)	-12-(*)
-1	.093	.031	.093	.733	.874	-	-	-	-17	1.094	1.032	1.094	NOT AVAILABLE	1.874	1.944	2.096	2.242
-2	.156	.094	.156	.795	.936	1.006	1.158	-	-18	1.156	1.095	1.156		1.936	2.006	2.158	2.304
-3	.219	.157	.219	.858	.999	1.069	1.221	1.367	-19	1.219	1.157	1.219		1.999	2.069	2.221	2.367
-4	.281	.220	.281	.920	1.061	1.131	1.283	1.429	-20	1.281	1.220	1.281	2.061	2.131	2.283	2.429	
-5	.344	.282	.344	.983	1.124	1.194	1.346	1.492	-21	1.344	1.282	1.344	2.124	2.194	2.346	2.492	
-6	.406	.345	.406	1.045	1.186	1.256	1.408	1.554	-22	1.406	1.345	1.406	2.186	2.256	2.408	2.554	
-7	.469	.407	.469	1.108	1.249	1.319	1.471	1.617	-23	1.469	1.407	1.469	2.249	2.319	2.471	2.617	
-8	.531	.470	.531	1.170	1.311	1.381	1.533	1.679	-24	1.531	1.470	1.531	2.311	2.381	2.533	2.679	
-9	.594	.532	.594	1.233	1.374	1.444	1.596	1.742	-25	1.594	1.532	1.594	2.374	2.444	2.596	2.742	
-10	.656	.595	.656	1.295	1.436	1.506	1.658	1.804	-26	1.656	1.595	1.656	2.436	2.506	2.658	2.804	
-11	.719	.657	.719	1.358	1.499	1.569	1.721	1.867	-27	1.719	1.657	1.719	2.499	2.569	2.721	2.867	
-12	.781	.720	.781	1.420	1.561	1.631	1.783	1.929	-28	1.781	1.720	1.781	2.561	2.631	2.783	2.929	
-13	.844	.782	.844	1.483	1.624	1.694	1.846	1.992	-29	1.844	1.782	1.844	2.624	2.694	2.846	2.992	
-14	.906	.845	.906	1.545	1.686	1.756	1.908	2.054	-30	1.906	1.845	1.906	2.686	2.756	2.908	3.054	
-15	.969	.907	.969	1.608	1.749	1.819	1.971	2.117	-31	1.969	1.907	1.969	2.749	2.819	2.971	3.117	
-16	1.031	.970	1.031	1.670	1.811	1.881	2.033	2.179	-32	2.031	1.970	2.031	2.811	2.881	3.033	3.179	

▲ "G" TOLERANCES: FOR -5 & -6 SIZES +.030/-0.010; FOR -8 & -10 SIZES +.040/-0.010; FOR -12 SIZE +.050/-0.010.

U.S. PATENT NO. 3643544, OTHER PATENTS PENDING.

**Fairchild**  
 CODE IDENT. NO.  
**92215**

**MONOGRAM**  
 CODE IDENT. NO.  
**98524**

APPROVED DATE  
 29 JANUARY 1979

REV. LETTER AND DATE  
 (B) 05-12-94

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TITLE  
**VISU-LOK, FASTENER, BLIND INTERNALLY THREADED, EXTERNAL SLEEVE HIGH TEMPERATURE (A-286 ALLOY) PROTRUDING HEX HEAD, SELF LOCKING GROUND SHANK**

**STANDARD**  
**PLT 224**  
 SHEET 1 OF 2



PROCUREMENT SPEC. : ESCBB2, CLASS 2, EXCEPT AS SPECIFIED HEREIN.

MATERIAL : NUT & SCREW  
 SLEEVE : CORROSION RESISTANT STEEL, TYPE A-286 PER AMS 5731, AMS 5732 OR AMS 5737.

HEAT TREAT : NUT & SCREW : SOLUTION HEAT TREATED AND AGED TO A CORE HARDNESS OF Rc 30 TO Rc 45. ALL CORE HARDNESS READINGS ARE TAKEN ON MOUNTED SPECIMEN, USING A BRALE PENETRATOR AND A 30 Kg LOAD (ROCKWELL 30N).  
 SLEEVE : SOLUTION TREATED.

FINISH : NUT & SCREW  
 SLEEVE : PASSIVATE PER MIL-S-5002 (QQ-P-35).

LUBRICANT: LUBRICANTS LISTED BELOW MAY BE APPLIED TO ANY OR ALL COMPONENTS IF REQUIRED FOR FASTENER PERFORMANCE: DRY FILM LUBE MoS<sub>2</sub> PER MIL-L-46010 TYPE I OR MIL-L-81329, WWM CARBO-WAX, PARAFFIN WAX AND/OR CETYL ALCOHOL PER MIL-L-87132.

PART CODE & EXAMPLE : PLT 224 - 8 - 8  
 GRIP LENGTHS IN 1/16THS (SEE TABLE II).  
 NOMINAL BODY DIAMETER AS TABULATED.  
 BASIC PART NUMBER, SELF LOCKING BLIND FASTENER.

GENERAL NOTES :

- 1.) OUTSIDE DIAMETER OF HEAD OF SCREW AND OUTSIDE DIAMETER OF SLEEVE SHALL NOT BE GREATER THAN MAXIMUM "D" DIAMETER.
- 2.) REMOVE ALL LOOSE OR HANGING BURRS.
- 3.) LOCKING FEATURE CONSISTS OF THREE (3) INDENTATIONS LOCATED 120° APART ON THE PERIPHERY OF THE NUT COMPONENT AND APPROXIMATELY .040 ABOVE THE INTERSECTION OF THE NUT NOSE ANGLE AND O.D. (MEAN GRIP OF FASTENER).
- 4.) THE PREVAILING TORQUE SHALL CONFORM TO THE VALUES AS TABULATED, WHEN TESTED IN ACCORDANCE WITH SPECIFICATION ESCBB-2. HOWEVER, PREVAILING TORQUES FOR THE PLT224-5-1 AND PLT224-6-1 SHALL BE RECORDED THRU A ROTATION OF ONLY 360° OF THE NUT.
- 5.) MANUFACTURER'S IDENTIFICATION:  
 LETTER "N" DESIGNATES MONOGRAM AEROSPACE FASTENERS.  
 LETTERS "VS" DESIGNATE VOI-SHAN.
- 6.) HEAD MARKINGS ON NUT DEPRESSED .010 MAX., LOCATION OPTIONL.
- 7.) STANDARD FINISHES AND LUBRICANTS ARE SHOWN ABOVE. REFER TO SPECIFICATION ESCBB-4 FOR SPECIAL FINISHES AND/OR LUBRICANTS, IF REQUIRED.
- 8.) HALF-GRIP SIZES MAY BE ORDERED BY ADDING (.5) TO THE GRIP DASH NUMBERS.  
 EXAMPLE: PLT 224-6-4.5 INDICATES A NOMINAL GRIP LENGTH OF 4.5 SIXTEENTHS = .281. THE GRIP RANGE FOR THESE HALF-GRIP SIZES WILL BE NOMINAL GRIP + .031/- .030. THE BASIC "G" DIMENSION WILL BE NOMINAL GRIP + .031 AND THE OVERALL SCREW LENGTH "L" DIMENSION MAY VARY AT MANUFACTURER'S OPTION.
- 9.) GROUND SHANK VISU-LOKS SHOULD NOT BE USED, EXCEPT WITH CONSIDERABLE CAUTION, IN APPLICATIONS WHICH EXCEED APPROXIMATELY .0005 INTERFERENCE FIT, GROUND SHANK VISU-LOKS WILL PERFORM SATISFACTORILY WHEN INSTALLED IN THE TABULATED HOLE SIZES.
- 10.) DISTORTION OF "D" DIAMETER SHALL NOT PREVENT INSERTION OF THE FASTENER INTO A RING GAUGE OF LENGTH EQUAL TO ONE DIAMETER AND DIAMETER EQUAL TO MAXIMUM "D" + .001". FORCE FOR INSERTION SHALL NOT EXCEED FIVE (5) POUNDS
- 11.) STANDARD GRIP LENGTHS ARE SHOWN IN TABLE II, SHORTER OR LONGER GRIPS THAN THOSE LISTED MAY BE AVAILABLE AS SPECIALS. ON GRIP LENGTHS SHORTER THAN THOSE LISTED, THE BREAKOFF LIMITS AND PREVAILING TORQUES SHOWN IN TABLE I DO NOT APPLY.
12. DIMENSIONS ARE EXCLUSIVE OF LUBRICATION.

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