



CUSTODIAN: ENGINEERING STANDARD COMMITTEE FOR BLIND BOLTS  
 3423 SOUTH GARFIELD AVENUE  
 LOS ANGELES, CALIFORNIA 90040

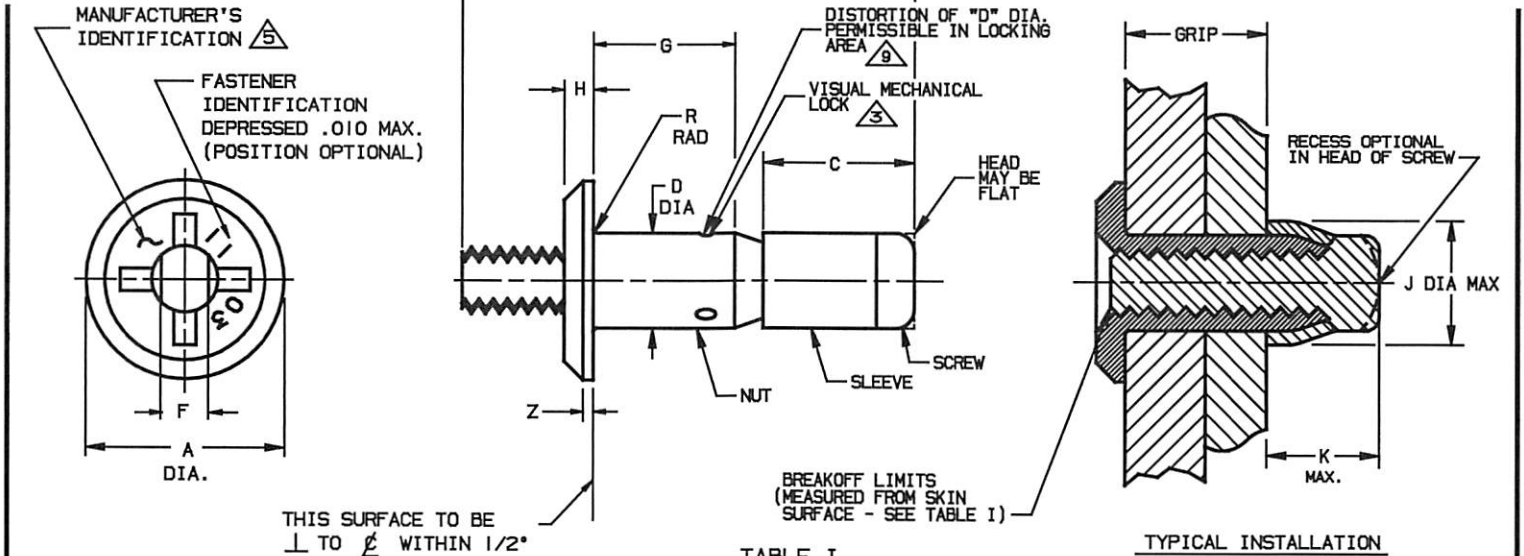


TABLE I

PART NUMBER	NOM. DIA.	A DIA.	C MAX.	D DIA.	F DRIVING FLATS	H	J DIA. MAX.	K MAX.	R RAD.	Z MAX.	HOLE SIZE	BREAK-OFF LIMITS $\triangle$	PREVAILING TORQUE [IN.-LBS.] MIN. $\triangle$	DOUBLE SHEAR STRENGTH [LBS.] MIN.	TENSILE STRENGTH [LBS.] MIN.
PLT 1103-5-(*)	.1635	.344	.268	.1645 .1625	.086 .081	.060 .053	.244	.246	.030 .010	.030	.168 .165	+ .088 + .000	1.0	3355	900
PLT 1103-6-(*)	.1980	.406	.303	.1990 .1970	.104 .099	.070 .063	.300	.281	.030 .015	.030	.202 .199	+ .098 + .010	1.5	5240	1400
PLT 1103-8-(*)	.2590	.531	.354	.2600 .2580	.135 .130	.085 .078	.384	.325	.030 .015	.040	.263 .260	+ .135 + .047	2.5	9000	2100
PLT 1103-10-(*)	.3105	.625	.423	.3115 .3095	.152 .147	.105 .098	.427	.390	.040 .020	.045	.315 .312	+ .146 + .043	3.5	12000	3600
PLT 1103-12-(*)	.3735	.750	.510	.3745 .3725	.185 .180	.125 .118	.516	.470	.040 .020	.045	.378 .375	+ .152 + .049	4.0	19500	5600

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

TABLE II

SECOND DASH NUMBER	GRIP $\triangle$	GRIP RANGE $\triangle$		L REF.						SECOND DASH NUMBER	GRIP $\triangle$	GRIP RANGE $\triangle$		L REF.					
		MIN.	MAX.	PLT 1103								MIN.	MAX.	PLT 1103					
				-5-(*)	-6-(*)	-8-(*)	-10-(*)	-12-(*)	-5-(*)					-6-(*)	-8-(*)	-10-(*)	-12-(*)		
-1	.093	.031	.093	.733	.874	-	-	-	-	-17	1.094	1.032	1.094	NOT	1.874	1.944	2.096	2,179	
-2	.156	.094	.156	.795	.936	1.006	1.158	-	-	-18	1.156	1.095	1.156	NOT	1.936	2.006	2.158	2,242	
-3	.219	.157	.219	.858	.999	1.069	1.221	1.304	-	-19	1.219	1.157	1.219	AVAILABLE	1.999	2.069	2.221	2,304	
-4	.281	.220	.281	.920	1.061	1.131	1.283	1.367	-	-20	1.281	1.220	1.281	AVAILABLE	2.061	2.131	2.283	2,367	
-5	.344	.282	.344	.983	1.124	1.194	1.346	1.429	-	-21	1.344	1.282	1.344	AVAILABLE	2.124	2.194	2.346	2,429	
-6	.406	.345	.406	1.045	1.186	1.256	1.408	1.492	-	-22	1.406	1.345	1.406	AVAILABLE	2.186	2.256	2.408	2,492	
-7	.469	.407	.469	1.108	1.249	1.319	1.471	1.554	-	-23	1.469	1.407	1.469	IN	2.249	2.319	2.471	2,554	
-8	.531	.470	.531	1.170	1.311	1.381	1.533	1.617	-	-24	1.531	1.470	1.531	IN	2.311	2.381	2.533	2,617	
-9	.594	.532	.594	1.233	1.374	1.444	1.596	1.679	-	-25	1.594	1.532	1.594	-5	2.374	2.444	2.596	2,679	
-10	.656	.595	.656	1.295	1.436	1.506	1.658	1.742	-	-26	1.656	1.595	1.656	-5	2.436	2.506	2.658	2,742	
-11	.719	.657	.719	1.358	1.499	1.569	1.721	1.804	-	-27	1.719	1.657	1.719	DIAMETER	2.499	2.569	2.721	2,804	
-12	.781	.720	.781	1.420	1.561	1.631	1.783	1.867	-	-28	1.781	1.720	1.781	DIAMETER	2.561	2.631	2.783	2,867	
-13	.844	.782	.844	1.483	1.624	1.694	1.846	1.929	-	-29	1.844	1.782	1.844	DIAMETER	2.624	2.694	2.846	2,929	
-14	.906	.845	.906	1.545	1.686	1.756	1.908	1.992	-	-30	1.906	1.845	1.906	DIAMETER	2.686	2.756	2.908	2,992	
-15	.969	.907	.969	1.608	1.749	1.819	1.971	2.054	-	-31	1.969	1.907	1.969	DIAMETER	2.749	2.819	2.971	3,054	
-16	1.031	.970	1.031	1.670	1.811	1.881	2.033	2.117	-	-32	2.031	1.970	2.031	DIAMETER	2.811	2.881	3.033	3,117	



CODE IDENT. NO.  
**92215**



"G" TOLERANCES: FOR -5 & -6 SIZES +.030/- .010; FOR -8 & -10 SIZES +.040/- .010; FOR -12 SIZE +.050/- .010.

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



CODE IDENT. NO.  
**98524**

APPROVED DATE

ECN #8512 11-28-90

REV. LETTER AND DATE

**A** 04-11-94

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TITLE  
**VISU-LOK, FASTENER, BLIND INTERNALLY THREADED, EXTERNAL SLEEVE ALLOY STEEL LOW PROTRUDING HEAD, SELF LOCKING**

**STANDARD**

**PLT 1103**

**SHEET 1 OF 2**



CUSTODIAN: ENGINEERING STANDARD COMMITTEE FOR BLIND BOLTS  
 3423 SOUTH GARFIELD AVENUE  
 LOS ANGELES, CALIFORNIA 90040



PROCUREMENT SPEC. : ESCBB-2 CLASS 1, EXCEPT AS SPECIFIED HEREIN.

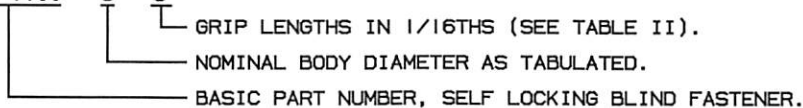
MATERIAL : NUT & SCREW : ALLOY STEEL: 4130 PER MIL-S-6758, 4140 PER MIL-S-5626 OR 8740 PER MIL-S-6049.  
 SLEEVE : CORROSION RESISTANT STEEL: 303 OR 304 PER QQ-S-763, AMS 5639 OR AMS 5641.  
 HEAT TREAT : NUT & SCREW : HEAT TREAT PER MIL-H-6875. APPROXIMATELY 180,000-200,000 PSI TENSILE (Rc 39-43).  
 SLEEVE : AS REQUIRED FOR PERFORMANCE.

△ FINISH : NUT & SCREW : CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2. CADMIUM PLATE PER NAS 672 IS PERMISSIBLE PROVIDED IT IS FOLLOWED BY A DICHROMATE POST TREATMENT PER QQ-P-416.  
 SLEEVE : PASSIVATE PER MIL-S-5002. CADMIUM PLATE PER QQ-P-416, TYPE I, CLASS 3.

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

PART CODE & EXAMPLE :

PLT 1103 - 6 - 6



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 PLT1103-5-1 AND PLT1103-6-1 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.
- △ 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 1103-6-4.5 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.) 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 "D" MAX + .001 INCH. FORCE FOR INSERTION SHALL NOT EXCEED FIVE (5) POUNDS
- △ 10.) 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.
11. DIMENSIONS ARE EXCLUSIVE OF LUBRICATION.

**Fairchild**  
 CODE IDENT. NO.  
 92215

**MONOGRAM**  
 CODE IDENT. NO.  
 98524

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

APPROVED DATE  
 ECN #6512 11-26-90  
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**STANDARD**  
 PLT 1103  
 SHEET 2 OF 2