



HEAD MARKING SHALL BE DEPRESSED (.010 MAX) AND ARRANGED AS FOLLOWS:

FIRST SECTOR - MARK WITH BASIC PART NUMBER ("PSC" OPTIONAL) EXCEPT MARK .1120-40 SIZE WITH "4", .1380-32 SIZE WITH "6", .1640-32 SIZE WITH "8", AND OPTIONAL .1900-32 SIZE WITH "10". THESE SIZES ALSO TO BE MARKED "C" FOR A286.

SECOND SECTOR - MARK WITH MANUFACTURER'S SYMBOL OR TRADEMARK (SYMBOL LOCATION OPTIONAL IN ANY SECTOR) LENGTH DASH NUMBER AND "L" OR "P" WHEN APPLICABLE. (SEE NOTE 9)
 "L" IDENTIFIES SCREWS WITH OPTIONAL LOCKING ELEMENT.
 "P" IDENTIFIES SCREWS WITH PATCH TYPE LOCKING ELEMENT ONLY.

THIRD SECTOR - MARK WITH RECESS DASH NUMBER, ENCIRCLED. RECESS NUMBER SHOULD BE APPROXIMATELY 25% LARGER THAN OTHER NUMERALS IN HEAD MARKING.

TABLE I - DIMENSIONS

Ø DASH NUMBER	THREAD SIZE	NOTE 2 MAX. ØA	ABSOLUTE MIN. ØA'	NOTE 2 MAX. B	MAX. ØD	MAX. E	NOTE 6 F	NOTE 7 J	NOTE 2 MAX. K	RADIUS R	MAX. U	RECESS SIZE
-04	.1120-40	.226	.193	.044	.112	.010	.125	.075	.085	.012 .002	.031	1
-06	.1380-32	.280	.246	.061	.138	.010	.156	.094	.105	.020 .010	.039	2
-08	.1640-32	.331	.296	.072	.164	.012			.124			
-3	.1900-32	.381	.338	.082	.190	.015			.143			
-4	.2500-28	.508	.456	.111	.250	.018	.178	.107	.189	.025 .010	.045	3
-5	.3125-24	.635	.575	.138	.312	.021	.208	.125	.237		.052	4
-6	.3750-24	.763	.692	.166	.375	.025			.282	.030 .015		

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TITLE: **SCREW, 100° OVAL HD, FULL THREAD
 ACR® RIBBED PHILLIPS® RECESS, A286 CRES
 SELF-LOCKING AND NONLOCKING**

DRAWN:
S. GUARINO

DATE:
09-11-79

DRAWING NUMBER

PSC-743

CHECKED:
G. LaMONICA

DATE:
08-09-04

SHEET 1 OF 3

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TABLE II

	DASH NUMBER FOR PREFERRED LENGTH																						
DASH NO.	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	20	22	24	26	28	30	32	34 TO 96
LENGTH	.19	.25	.31	.38	.44	.50	.56	.62	.69	.75	.81	.88	.94	1.00	1.12	1.25	1.38	1.50	1.62	1.75	1.88	2.00	2.12 TO 6.00
LENGTH TOL.	+.00 -.03														+.00 -.06							+.00 -.09	

MATERIAL: A286 CORROSION RESISTANT STEEL WITH COMPOSITION PER AMS 5731 OR AMS 5737.
LOCKING ELEMENT- PLASTIC PER MIL-F-18240 AND QPL-18240.

HEAT TREAT: 160 KSI MINIMUM ULTIMATE TENSILE.

FINISH: UNPLATED SCREWS - PASSIVATE TO MEET REQUIREMENTS OF NAS4003.

PLATED SCREWS - CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2. EMBRITTLEMENT TEST PER QQ-P-416 DOES NOT APPLY. CADMIUM PLATED A286 CRES SCREWS SHALL BE IDENTIFIED WITH GREEN DYE OR PAINT ON THE THREAD END. MAXIMUM COVERAGE MAY INCLUDE THE CHAMFER PLUS ONE COMPLETE THREAD.

COATED SCREWS - ALUMINUM COATING PER NAS4006.

CODE: BASIC PART NUMBER = NON-LOCKING, PLATED SCREW. SEE TABLE I AND II.

FIRST DASH NUMBER INDICATES DIAMETER. SEE TABLE I.

SECOND DASH NUMBER INDICATES LENGTH IN .0625 INCREMENTS (ROUNDED TO TWO DECIMAL PLACES). SEE TABLE II FOR TABULATIONS OF LENGTH DIMENSIONS. USE OF .25 INCH INCREMENTS IS RECOMMENDED FOR SCREWS OVER 3 INCHES LONG. INTERMEDIATE OR LONGER LENGTHS MAY BE SPECIFIED BY USE OF WHOLE DASH NUMBER ONLY.

ADD "A" AFTER DIAMETER DASH NUMBER FOR ALUMINUM COATED SCREWS. MAY BE USED WITH "L" OR "P" CODE.

ADD "L" AFTER DIAMETER DASH NUMBER FOR SELF-LOCKING SCREWS, OPTIONAL CONFIGURATION. DO NOT USE WITH "P" CODE.

ADD "U" AFTER DIAMETER DASH NUMBER FOR UNPLATED SCREWS. MAY BE USED WITH "L" OR "P" CODE.

ADD "P" AFTER DIAMETER DASH NUMBER FOR SELF-LOCKING SCREWS, PATCH TYPE LOCKING ELEMENT. DO NOT USE WITH "L" CODE.

WHEN MULTIPLE LETTER CODES ARE USED, SEQUENCE MUST BE IN ALPHABETICAL ORDER.

EXAMPLE OF PART NUMBER:

PSC743-3-10 = SCREW, .1900-32 THREAD, .62 LENGTH, NON-LOCKING, PLATED.

PSC743-3A10 = SCREW, .1900-32 THREAD, .62 LENGTH, NON-LOCKING, ALUMINUM COATED.

PSC743-3L10 = SCREW, .1900-32 THREAD, .62 LENGTH, SELF-LOCKING, OPTIONAL CONFIGURATION, PLATED.

PSC743-3LU10 = SCREW, .1900-32 THREAD, .62 LENGTH, SELF-LOCKING, OPTIONAL CONFIGURATION, UNPLATED.

PSC743-3PU10 = SCREW, .1900-32 THREAD, .62 LENGTH, SELF-LOCKING, PATCH TYPE, UNPLATED.

NOTES:

(1) DIAMETER OF UNTHREADED PORTION OF SCREW SHALL NOT BE LESS THAN MINIMUM PITCH DIAMETER NOR MORE THAN MAXIMUM MAJOR DIAMETER OF THREAD.

(2) DIMENSION "A" APPLIES TO THE SHARP CORNER INTERSECTION OF 100°/99° CONE AND TOP OF HEAD (WITHOUT THE OVAL CROWN).
DIMENSIONS B AND K ARE INCLUDED FOR ENGINEERING REFERENCE ONLY AND ARE NOT TO BE USED FOR INSPECTION.

(3) SCREWS 2 INCHES LONG OR SHORTER - THREADS SHALL EXTEND TO WITHIN .03 OF POINT OF TANGENCY OF "R" BUT SHALL NOT ENTER "R" FILLET AREA.

SCREWS LONGER THAN 2 INCHES - SHALL HAVE A MINIMUM COMPLETE THREAD LENGTH OF 1.75 INCHES. MAXIMUM THREAD LENGTH SHALL NOT ENTER "R" FILLET AREA.

INCOMPLETE THREADS - SEE NAS4003.

(4) CONCENTRICITY: CONICAL SURFACE OF HEAD TO THREAD PITCH DIAMETER WITHIN .005 FIM.

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NOTES (CONTINUED):

- (5) PROTRUSION OF LOCKING ELEMENTS SHALL BE CONTROLLED SO THAT IT WILL PASS FREELY OR WITH FINGER PRESSURE THROUGH A RING GAGE WITH DIAMETER OF .010 (+.001, -.000) GREATER THAN MAXIMUM MAJOR DIAMETER OF SCREW THREAD.
- (6) "F" MINIMUM (5 THREAD PITCHES) = REGION OF MINIMUM ENGAGEMENT WITH FEMALE THREAD REQUIRED TO MEET MIL-F-18240 REQUIREMENTS. LOCKING ELEMENT WITHIN "F" REGION MUST DEVELOP REQUIRED TORQUE WHEN TESTED PER MIL-F-18240.
- (7) FOR EASE OF STARTING, LOCKING ELEMENT SHALL NOT BE EFFECTIVE IN "J" AREA (3 THREAD PITCHES).
- (8) MINIMUM TORQUE VALUES (LBF-IN) WHICH RECESS MUST DEVELOP IN REMOVAL DIRECTION WITH APPROPRIATE DRIVERS PER NAS8500 THROUGH 8506 AND 5 POUND MAXIMUM END LOAD. CAMOUT OF THE DRIVER OR EXCESSIVE DEFORMATION OF THE RECESS SHALL BE CAUSE FOR REJECTION OF THE LOT.
- (9) "A" = ALUMINUM COATED AND "U" = UNPLATED CODES NEED NOT APPEAR ON THE HEAD OF THE BOLT.
- (10) MAGNETIC PERMEABILITY SHALL BE LESS THAN 2.0 (AIR = 1.0) FOR FIELD STRENGTH H = 200 OERSTEDS USING A MAGNETIC PERMEABILITY INDICATOR PER MIL-I-17214 OR EQUIVALENT.
- (11) DIMENSIONS TO BE MET AFTER PLATING.
- (12) DIMENSIONS ARE IN INCHES.

SURFACE TEXTURE:

(AA MAX PER ANSI B46.1) HEAD TO SHANK FILLET, THREAD FLANKS AND THREAD ROOT 32;
CONICAL SURFACE OF HEAD 63; OTHER SURFACES 125.

PROCUREMENT SPECIFICATION:

NAS4003, EXCEPT AS NOTED. COLD WORK OF HEAD TO SHANK FILLET IS NOT REQUIRED.
LOCKING ELEMENT FOR SELF-LOCKING SCREWS: PER MS15981 AND MIL-F-18240. ANY TYPE OF CONFIGURATION IS OPTIONAL WHEN "L" CODE IS SPECIFIED. PATCH TYPE LOCKING ELEMENT (WITH NO METAL REMOVED) IS REQUIRED WHEN "P" CODE IS SPECIFIED. LOCKING ELEMENT MUST BE SUPPLIED BY A QUALIFIED SOURCE LISTED IN QPL18240. SHIPPING NOTICE SHOULD IDENTIFY THE SUPPLIER OF SCREW AND LOCKING ELEMENT SEPARATELY. RECESS TORQUE VALUES SHALL NOT APPLY.

PREPARED FOR ROLLS-ROYCE TO REPLACE NAS6500-6506.

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