



HEAD MARKING SHALL BE RAISED OR 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". ALSO MARK 'V' FOR TITANIUM.
- SECOND SECTOR - MARK WITH LENGTH DASH NUMBER AND MARK WITH MANUFACTURER'S SYMBOL OR TRADEMARK (SYMBOL LOCATION OPTIONAL IN ANY SECTOR)
- THIRD SECTOR - MARK WITH RECESS DASH NUMBER, ENCIRCLED. RECESS NUMBER SHOULD BE APPROXIMATELY 25% LARGER THAN OTHER NUMERALS IN HEAD MARKING. (NOTE 9)

TABLE I DIMENSIONS

Ø DASH NUMBER	THREAD SIZE	HEX A	MIN. B	MAX. ØD	H	DIA. MIN. J	RADIUS R	DIA. MAX. U	RECESS SIZE
-04	.1120-40	.189/.181	.207	.112	.060/.049	.156	.010/.005	.031	1
-06	.1380-32	.251/.243	.268	.138	.093/.080	.215	.010/.005	.039	2
-08	.1640-32	.251/.243	.268	.164	.110/.096	.215	.020/.010	.039	
-3	.1900-32	.313/.305	.339	.190	.120/.105	.275	.020/.010	.039	

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

1/ CAD DWG.
08-09-04
REVISION

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TITLE: **SCREW, HEX HEAD, FULL THREAD
ACR® RIBBED PHILLIPS® RECESS
6AL-4V TITANIUM ALLOY, NON-LOCKING**

DRAWN: S. GUARINO	DATE: 09-13-79	DRAWING NUMBER PSC-742
CHECKED: G. LAMONICA	DATE: 08-09-04	SHEET 1 OF 2
PHILLIPS SCREW CO., 508 EDGEWATER DRIVE, WAKEFIELD, MA 01880 U.S.A. PHONE: 781-224-9750 FAX: 781-224-9753		

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MATERIAL: 6AL-4V TITANIUM ALLOY PER AMS 4928 OR AMS 4967.

HEAT TREAT: 160 TO 180 KSI ULTIMATE TENSILE.

FINISH: UNPLATED SCREWS - NONE

PLATED SCREWS - CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2, EXCEPT A NICKEL STRIKE MAY BE USED PRIOR TO CADMIUM PLATING. EMBRITTLEMENT TEST PER QQ-P-416 DOES NOT APPLY. CADMIUM PLATED 6AL-4V TITANIUM ALLOY SCREWS SHALL BE IDENTIFIED WITH RED 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 SELF-LOCKING SCREW (SEE TABLE I).

FIRST DASH NUMBER INDICATES DIAMETER.

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

ADD "U" AFTER DIAMETER DASH NUMBER FOR UNPLATED SCREWS.

SECOND DASH NUMBER INDICATES LENGTH IN .0625 INCREMENTS. SEE TABLE II FOR TABULATIONS OF LENGTH DIMENSIONS. INTERMEDIATE OR LONGER LENGTHS MAY BE SPECIFIED BY USE OF WHOLE DASH NUMBERS ONLY.

EXAMPLE OF PART NUMBER:

PSC742-3-10 = SCREW, .1900 THREAD, .625 LENGTH, NON-LOCKING, CADMIUM PLATED.

PSC742-3A10 = SCREW, .1900 THREAD, .625 LENGTH, NON-LOCKING, ALUMINUM COATED.

PSC742-3U10 = SCREW, .1900 THREAD, .625 LENGTH, NON-LOCKING, 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) SCREWS LESS THAN 2 DIAMETERS IN LENGTH - COMPLETE THREADS SHALL EXTEND TO WITHIN 2 PITCHES OF BEARING SURFACE OF HEAD AND INCOMPLETE THREADS MAY EXTEND UP TO BEARING SURFACE.
SCREWS 2 DIAMETERS THRU 2 INCHES IN LENGTH - COMPLETE THREADS SHALL EXTEND TO WITHIN 2 PITCHES OF TANGENCY OF "R" AND INCOMPLETE THREADS MAY EXTEND UP TO "R" FILLET AREA.
SCREWS LONGER THAN 2 INCHES - COMPLETE THREADS SHALL EXTEND A MINIMUM OF 1.75 INCHES FROM END OF SCREWS AND INCOMPLETE THREADS MAY EXTEND UP TO "R" FILLET AREA.
INCOMPLETE THREADS - SEE NAS4004.
- (3) CONCENTRICITY: 'J' DIAMETER TO THREAD PITCH DIAMETER WITHIN .005 FIM.
- (4) MAXIMUM 'J' DIAMETER SHALL NOT EXCEED ACTUAL 'A' DIMENSION.
- (5) BEARING SURFACE SQUARENESS: WITHIN .003 FIM OF SHANK DIAMETER.
- (6) 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.
- (7) DIMENSIONS TO BE MET AFTER PLATING.
- (8) DIMENSIONS ARE IN INCHES.
- (9) "A" = ALUMINUM COATED AND "U" = UNPLATED CODES NEED NOT APPEAR ON THE HEAD OF THE BOLT.

SURFACE TEXTURE:

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

PROCUREMENT SPECIFICATION:

NAS4004, EXCEPT AS NOTED. COLD WORKING OF HEAD TO SHANK FILLET IS NOT REQUIRED.
RECESS TORQUE VALUES SHALL NOT APPLY.

PREPARED FOR ROLLS-ROYCE TO REPLACE NAS6100-6103

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